OPERATING & MAINTENANCE MANUAL

STAR - EGO _ mod.Air

active system

Please read this entire manual before installation and use of this pellet fuel burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

Contact your local building or fire officials about restrictions and installations inspection requirements in your area.

Save these instructions

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INTRODUCTION

Dear Customer,

We wish to thank you for choosing an MCZ product, specifically a stove of the MCZ pellet line.

In order to get the best performance from your stove and to enjoy to the full the warmth and the sense of well-being which the flame will diffuse through the home, we recommend that you read this booklet carefully before lighting the stove for the first time.

While thanking you again, may we remind you that the stove **MUST NOT** be used by children, and that they must always be kept at a safe distance from it!

Revisions to the publication

In order to improve the product, to keep this publication up to date the manufacturer reserves the right to make modifications without any advance notice. Any reproduction, even in part, of this manual without the consent of the manufacturer is prohibited.

Care of the manual and how to consult it

- Take good care of this manual and keep it in a place which can easily and quickly be reached.
- If this manual should be lost or destroyed, or if it is in poor condition, ask for a copy from your retailer or directly from the manufacturer, providing product identification data.
- Information which is essential or that requires special attention is shown in **bold text.**
- *Italic text* is used to call your attention to other paragraphs in the manual or for any additional clarifications.

SYMBOLS USED IN THE MANUAL

	ATTENTION This warning sign indicates that the message to which it refers should be carefully read and understood, because failure to comply with what these notices say can cause serious damage to the stove and put the user's safety at risk.
	INFORMATION This symbol is used to highlight information which is important for proper stove operation. Failure to comply with these provisions will compromise use of the stove and its operation will not be satisfactory.
	OPERATING SEQUENCES: Indicates a sequence of buttons to be pushed to access menus or to make adjustments.
	MANUAL Indicates that you should carefully read this manual or the related instructions.

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1. WARNINGS AND GUARANTEE CONDITIONS

1.1. SAFETY INSTRUCTIONS

- **Installation of the stove, making the electrical connections, checking its operation, and maintenance are all tasks which should be carried out by qualified and authorised personnel.**
- **Install the stove in accordance with local regulations.**
- For the correct use of the stove and of the electronic apparatus connected to it, and to prevent accidents, the instructions given in this booklet must always be followed.
- Use, adjustment and programming must be carried out by adults. Errors or incorrect settings may cause hazardous conditions and/or poor operation.
- Before beginning any operation, the user, or whoever is preparing to operate on the stove, must have read and understood the entire contents of this instruction booklet.
- The stove is to be used only for its intended purpose. Any other use is to be considered improper and therefore hazardous.
- Do not use the stove for standing on or as any kind of support.
- Do not put clothes to dry on the stove Any clothes hangers and suchlike must be kept a suitable distance from the stove. **Danger of fire.**
- Keep all combustible material, including pellet fuel, well away from the appliance. **Danger of fire.**
- All responsibility for improper use is taken entirely by the user and such use relieves MCZ of any civil or criminal responsibility.
- Tampering or unauthorised substitution of non-original spare parts can be hazardous for the safety of the operator and relieves MCZ of any civil or criminal responsibility.
- Most of the surfaces of the stove are extremely hot (the door, the handle, the glass, smoke discharge pipes etc.). Avoid coming into contact with these parts, without adequate protective clothing or suitable implements, such as gloves with thermal protection.
- Carefully explain this hazard to elderly people, disabled people and particularly to all children, keeping them away from the stove while it is running.
- **Under no circumstances should the stove be run with the door open or the glass broken.**
- Do not touch the stove with wet hands, as it is an electrical appliance.
- Before carrying out any cleaning or maintenance operation, make sure in advance that the stove is disconnected from the main electrical supply, by turning off the main switch located on the back of the stove, or by unplugging the stove.
- The stove must be connected to a properly grounded electrical outlet.
- The electrical supply must be adequately rated for the stated electrical requirements (amperage) of the stove.
- Incorrect installation or faulty maintenance (not conforming to the requirements set out in this booklet) could cause harm to people, animals or property. In such cases MCZ is absolved from any civil or criminal responsibility.

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1.2. OPERATING WARNINGS

- In the event of poor operation or other problem shut the stove down and consult tech support.
- Pellets must not be fed manually into the burn pot.
- Accumulated un-burnt pellets in the burn pot after repeated failed ignition cycles must be removed before lighting.
- Avoid to strike or slam the door shut.
- Do not clean the glass door when it is hot.
- Do not wash the stove with water. The water could get inside the unit and damage the electrical insulation and cause electric shocks.
- Do not overheat the room you are in and where the stove is installaed. This could cause injuries and health problems.
- Do not expose plants or animals directly to a current of hot air. Both plants and animals could be harmed by it.
- Do not put any fuels in the hopper other than wood pellets.
- Install the stove in a well ventilated location which is accessible in case of fire equipped with a fire extinguisher.
- In case of a fire in the flue pipe, turn the stove off, disconnect it from the power supply and do not open the door. Then contact the competent authorities.
- If the stove and the ceramic cladding are in storage, it should be in a dry place and not exposed to extremes of temperature.
- The stove must be set on a non-combustible floor or hearth pad.
- In case of igniter failure do not light the stove with gel or other combustible materials. Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or 'freshen up' a fire in this heater. Keep all such liquids well away from the heater while it is in use.

INFORMATION

- In case of any problems, get in touch with your dealer, or a qualified engineer authorised by MCZ, and if a repair is necessary, insist on the use of original spare parts.
- Use only dry premium grade pellet fuel. Periodically check and clean the exhaust outlet (connection to the flue pipe).
- The pellet stove is not a cooking appliance.
- Always keep the cover of the pellet hopper closed.
- Keep this instruction manual in a safe place. If it gets lost, ask MCZ or your authorised dealer for another copy.

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1.3. WARRANTY TERMS

MCZ warrants the stove body, for a period of two years from the date of purchase. Also electrical and electronic components, & fans, are warranted for 2 years from the date of purchase. The warranty is conditional on the product registration certificate being filled in and returned within 14 days, and requires that the product be installed by a MCZ dealer or by a licensed installer, according to the detailed instructions given in this manual.

Defective parts covered under this warranty will be replaced free of charge during the warranty period.

1.3.1. Limitations

The warranty does not cover parts subject to normal wear such as gaskets, glass, and any parts with can be removed from the firebox.

1.3.2. Exclusions

Variations in colour in the painted or ceramic parts, and crackling of the glaze on the ceramics, do not constitute grounds for a claim under the warranty, as they are natural characteristics of the material and of the use of the product.

The warranty does not cover any parts which may be found to be faulty as a result of negligence or carelessness in use, or of incorrect maintenance, or of installation not complying with MCZ's specification (see the relevant chapters in this user manual).

MCZ accepts no responsibility for damage caused, directly or indirectly, by failure to observe all the instructions in this manual.

If the product does not perform correctly, contact your local retailer and/or importer.

Damage caused by transport and/or handling is excluded from the warranty.

For installation and use of the product, reference must be made exclusively to the manual.

The warranty will be invalidated in the event of damage caused by tampering with the appliance, atmospheric agents, natural disasters, electrical discharges, fire, defects in the electrical system, and caused by lack of, or incorrect, maintenance in terms of the manufacturer's instructions.

WARRANTY CLAIMS

Warranty requests must be addressed to the retailer where the stove was purchased.

MCZ DECLARES THAT THE STOVE WHICH YOU HAVE PURCHASED COMPLIES WITH EEC DIRECTIVE 89/336 and 72/23 and SUCCESSIVE AMENDMENTS

MCZ refuses to accept any responsibility in the event that the stove or any other accessory have been improperly used or modified without authorisation.

For all replacement of parts, only original MCZ spare parts must be used.

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2. Installation – understanding the basics

2.1. Pellets

Wood pellets are manufactured by hot-extruding compressed sawdust which is produced during the working of natural dried wood. The compactness of the material comes from the lignin which is contained in the wood itself, and allows the production of pellets without the use of glues or binders.

Fuel pellets

The market offers different types of pellet with characteristics which vary depending on what mixture of woods is used. The diameter varies between 6 mm and 8 mm, with a standard length in the range ¼" to 1 ½". Good quality pellets have less than 0.5% ash with a moisture content which varies from 5% to 8% by weight.

Besides being an ecological fuel (exploiting timber residues to the maximum and achieving cleaner combustion than is possible with fossil fuels), pellets also have technical advantages. While good-quality timber has a calorific power of 4.4 kW/kg (with 15% moisture, therefore after about 18 months' seasoning), the equivalent figure for pellets is 5.3 kW/kg.

To ensure good combustion, the pellets must be stored in an area that is free of humidity and protected from dirt. The pellets are usually supplied in 40 lb. sacks, so storing them is very convenient.

Good quality pellets ensure good combustion, thus lowering the emission of harmful agents into the atmosphere.

The poorer the quality of the fuel, the more frequently cleaning will be necessary. Especially the internal parts, such as the grate and the combustion chamber.

The main certifications of quality for pellets in the European market are **DINplus** and **Ö-Norm M7135**; these ensure respect of:

- ✓ Calorific power: 4.9 kW/kg
- ✓ Water content: max 10% of weight
- ✓ Percentage of ashes: max 0,5% of weight
- ✓ Diameter: 5 – 6mm
- ✓ Length: max 30mm
- ✓ Contents: 100% untreated wood, with no added bonding substances (bark percentage 5% max)
- ✓ Packaging: in sacks made from ecologically compatible or biologically decomposing material

MCZ strongly recommends using certified premimun quality pellet fuel in its stoves

The use of poor quality high ash fuel compromises the running of your stove and could void the warranty.

MCZ pellet stoves run exclusively on pellets with a diameter of 6-8 mm with lengths from ¼" to 1 ½".

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2.2. INSTALLATION

IMPORTANT!
Installation and assembly of the stove must be carried out by qualified personnel.

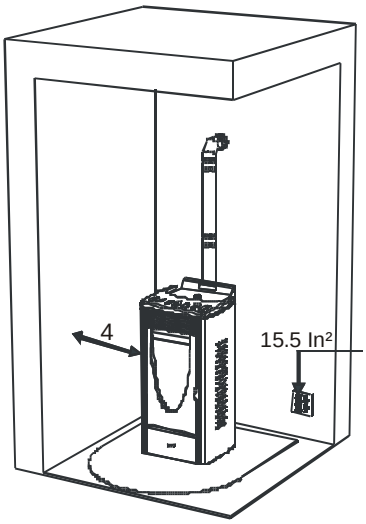
The stove must be installed in an area with adequate space to allow the stove to be cleaned and maintained.

The stove must be positioned in such a way that the plug is accessible.

The site must be:

- Provided with enough make up air for proper operation of the stove.
- Have a properly grounded 110V outlet within 6'

Installation and repair of the Ego/Star Pellet Stove should be done by a qualified service person. The appliance should be inspected by a qualified service person before use and at least annually. Every 2000 hours of effective work a temporary service warning appears in display at each ignition, to remind the requirement of a periodical inspection. It is imperative that control compartments, burners, and circulating air passageways of the Ego/Star be kept clean.



Example of pellet stove installation

2.3. OPERATING AREA

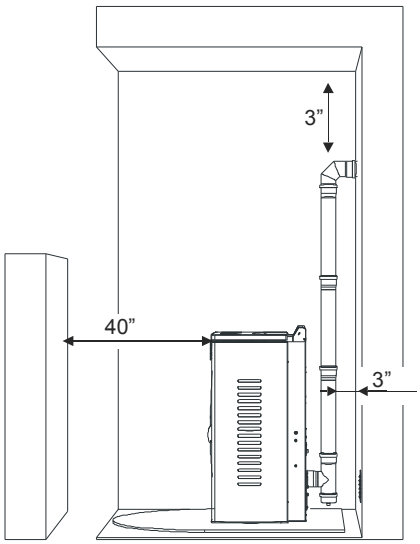
For proper operation and a good heat distribution, the stove must have adequate make up air. This can be supplied by connecting the outside air supply or by assuring that there is adequate ventilation in the home.

In bedroom or bathroom installations the outside air connection is required!
Locating the stove in a room with an explosive atmosphere is prohibited.

If the walls are not flammable, position the stove with a clearance to the rear of at least 2,5".

For flammable walls, keep a minimum distance of 5" at the rear, 4" on the sides and 40" at the front.

If the room contains objects which are believed to be particularly delicate, such as drapes, sofas and other furniture, their distance from the stove should be considerably increased. See page 16 for details.

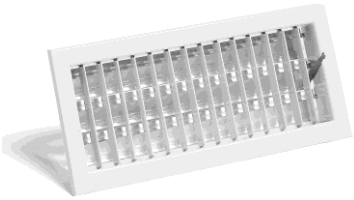


Example of pellet stove installation

If the flooring is made of wood, provide a floor protection surface in compliance with current national standards.

2.4. CONNECTION TO THE EXTERNAL AIR INTAKE

It is essential that at least as much air must be able to flow into the room where the stove is installed as is required for proper combustion in the appliance and for the ventilation of the room. This can be accomplished by connecting the outside air feature on the stove or by providing a ventilated wall pass through 15 sq in min.



The air intake must:

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- Directly provide air to the room where the stove is installed
- Must be protected by a grill, metal mesh or suitable guard, as long as this does not restrict air flow.
- be positioned where it will not be obstructed

MCZ strongly reccommends to install the air filter provided with the stove (see Page 29).

Connection to outside (see Page 29) is required for all mobile home installations and where building codes require.

In all the other cases it is not mandatory to connect the air intake directly to the stove (so that it draws air directly from outside), but it is essential to ensure an airflow to the stove for proper operation.

2.5. CONNECTION TO THE FLUE PIPE

The stove must be connected to a UL listed pellet vent.

Pellet venting pipe (also known as L or PL vent) is constructed of two layers with air space between the layers. This air space acts as an insulator and reduces the outside surface temperature to allow a clearance to combustibles of only 3 inches. The sections of pipe lock together to form an air tight seal in most cases; however, in some cases a perfect seal is not achieved. For this reason and the fact that the Ego/Star operates with a positive vent pressure, we specify that the joints also be sealed with high-temp silicone.

Connect the stove to listed 3" or 4" pellet vent. Be sure to use a starting collar to attach the venting system to the stove. **The starting collar must be sealed to the stove with high temp silicone caulking.**

Follow vent manufacturers instructions regarding clearances to combustibles. At the bottom of the flue pipe, provide an inspection cap to allow periodic inspection and cleaning, **which must be done annually.**

IMPORTANT!

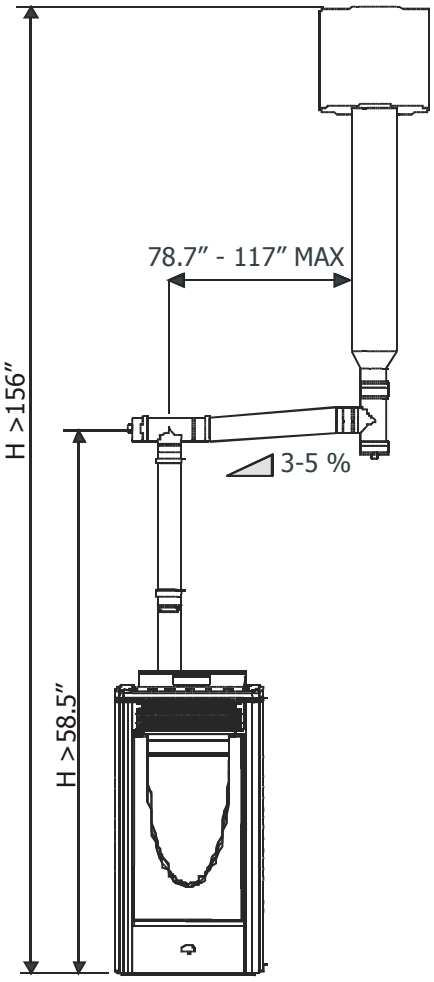
The stove must be connected to a flue pipe or an internal vent system conforming to UL standards

Be sure to use approved pellet vent pipe wall and ceiling pass-through fittings to go through combustible walls and ceilings.

Follow manufacturers instructions regarding proper installation of the flue system.

The Exhaust from the combustion of pellets may cause discoloration on exterior walls. To eliminate this possibility terminate the vent above the roof line.

Exhaust gasses are very hot and almost invisible. They can cause burns on contact.



Example of pellet stove installation

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A combustion blower is used to extract the combustion gases from the firebox. This causes a negative pressure in the firebox and a positive pressure in the venting system. The longer the vent pipe and more elbows used in the system, the greater the flow resistance. Because of these facts we recommend using as few elbows as possible and 20 feet or less of vent pipe. The maximum horizontal run should not exceed 3 feet and must have a slope of not less than 3%. The vertical distance between one 90' elbow or T connector and another must not be less than 4 ½'. If more than 20 feet of pipe is needed, the diameter should be increased from 3" to 4" because a larger pipe causes less flow resistance.
Using a draft gauge check that there is a minimum draft of 10 Pa when the stove is burning at max level.

IMPORTANT! All sections of the venting must be inspectable and removable to enable periodic cleaning. All 90 degree elbows should be T connectors to allow cleaning and inspection, which must be done annually.

FOR CONNECTION TO THE FLUE PIPE, NOT MORE THAN 3' OF HORIZONTAL AND NOT MORE THAN THREE 90° ELBOWS ARE ALLOWED

IT IS ALSO ADVISABLE TO USE 4" PELLET VENT FOR RUNS OVER 20' IN HEIGHT.

This type of connection ensures the ventilation of the exhaust fumes in the event of a temporary power outage.

Position the stove bearing in mind all the instructions and considerations above.

See Page 18 for further details of vent configurations.

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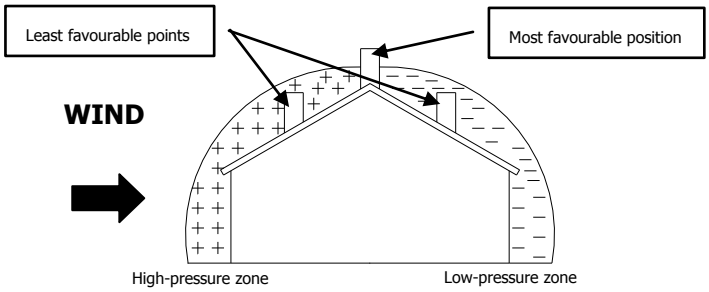
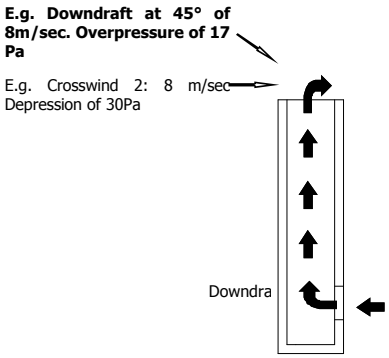
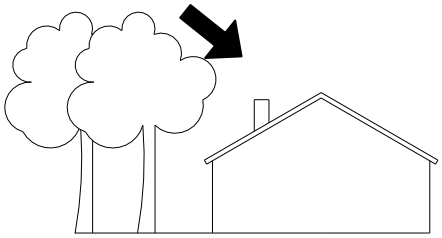
2.6. OPERATING PROBLEMS CAUSED BY DRAUGHT DEFECTS IN THE FLUE

Of all the weather and geographical conditions which affect the operation of a flue pipe (rain, fog, snow, altitude a.s.l., exposure to sunlight, direction of facing), the **wind** is unquestionably the most decisive. In fact, along with thermal depression caused by the difference in temperature inside and outside of the chimney, there is another type of depression or over-pressure: dynamic pressure caused by the wind. An updraft always increases depression and hence draught. A crosswind increases depression provided the cowl has been installed properly. A downdraft always decreases depression, at times inverting it.

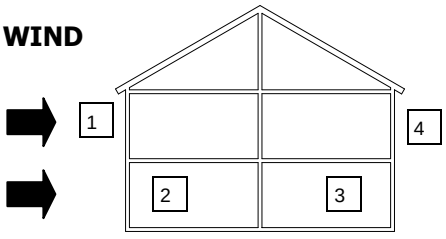






Besides the direction and force of the wind, the position of the flue and the cowl with respect to the roof of the building and the surrounding landscape is important.

The wind also influences the operation of the chimney indirectly by creating high-pressure and low-pressure zones, not only outside the building but inside as well. In rooms directly exposed to the wind **(2)**, an indoor high-pressure area can be created which can augment the draught in stoves and fireplaces, but it can be counteracted by the external high pressure if the cowl is situated on the side exposed to the wind **(1)**. On the other hand, in the rooms on the opposite side from the direction of the wind **(3)**, a dynamic depression can be created which competes with the natural thermal depression developed by the chimney, but this can be compensated for (sometimes) by locating the flue on the opposite side from the direction of the wind **(4).**



1-2 = High-pressure zones
3-4 = Low-pressure zones

IMPORTANT! The operation of the pellet stove is noticeably sensitive to the conformation and position of the flue which is adopted.

Hazardous conditions can only be overcome by suitable setting-up of the stove carried out by qualified MCZ personnel.

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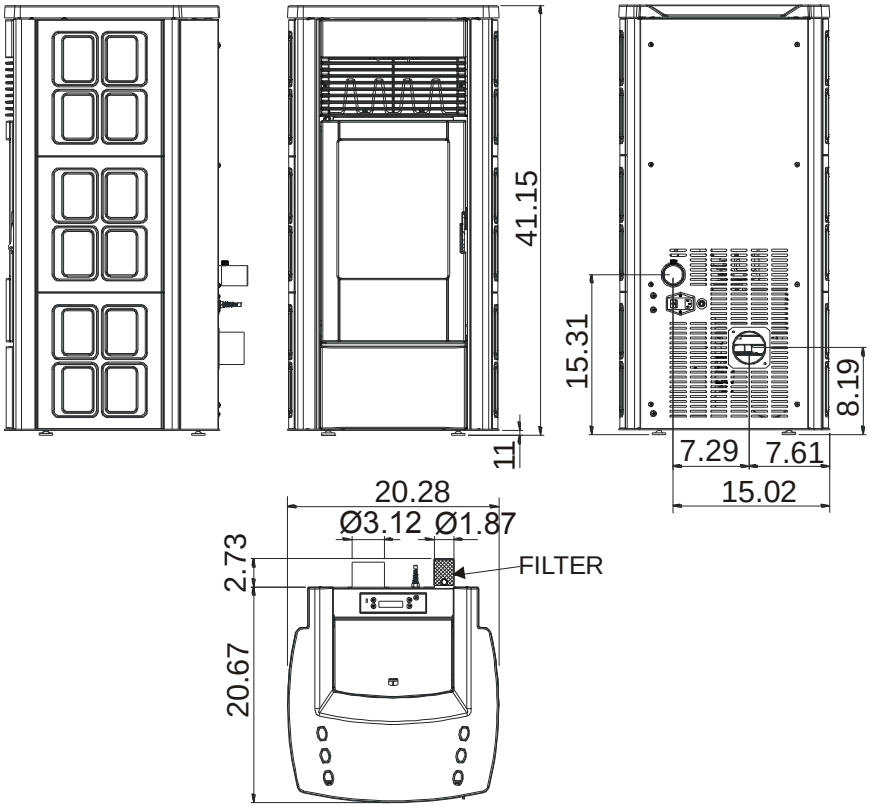
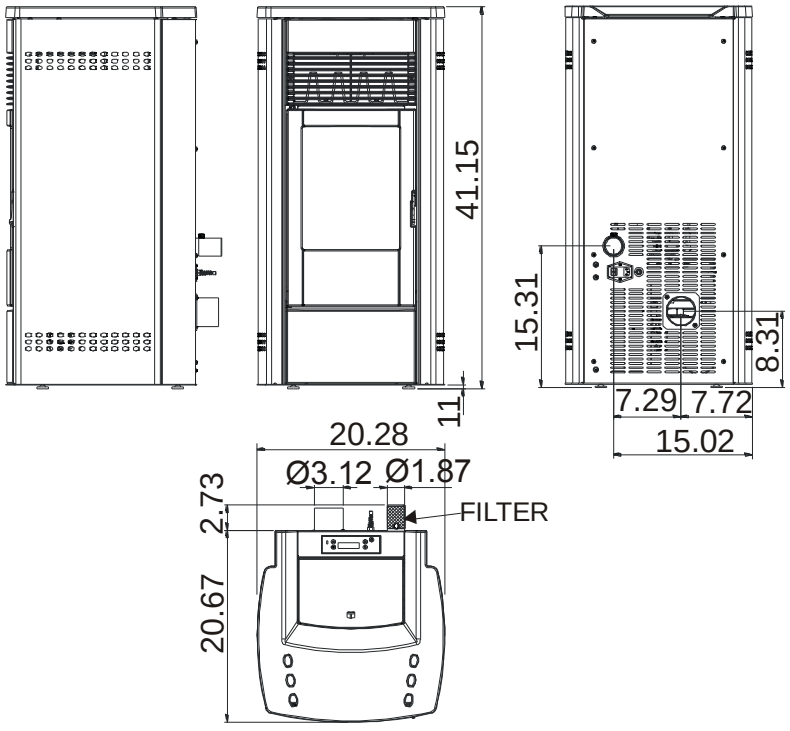
3. INSTALLATION AND ASSEMBLY

3.1. DRAWINGS AND TECHNICAL CHARACTERISTICS

3.1.1. STAR Air



3.1.2. EGO Air



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3.1.3. Technical characteristics

Technical characteristics	EGO – STAR Mod. AIR
Nominal power (Max)	31.500 BTU
Reduced power (Min)	10.500 BTU
Efficiency	>78%
Smoke Temperature at Max	180°C
Smoke Temperature at Min	90°C
Suggested draft at nominal power	0,12 mbar – 12 Pa
Suggested draft at reduced power	0,06 mbar – 6 Pa
Pellet hopper capacity	37 litres
Pellet type	diameter 6-8 mm / length 5-30 mm
Pellet consumption per hour	Min ~ 0,6 kg/h * Max. ~ 1,7 kg/h *
Ignition electrical power	420 Watt
Mean electrical power	80 Watt
Power supply frequency and voltage	110 Volts / 60 Hz
Net weight	140 Kg.
Weight with packaging	150 Kg.

* Data that may vary depending on the type of pellets used.

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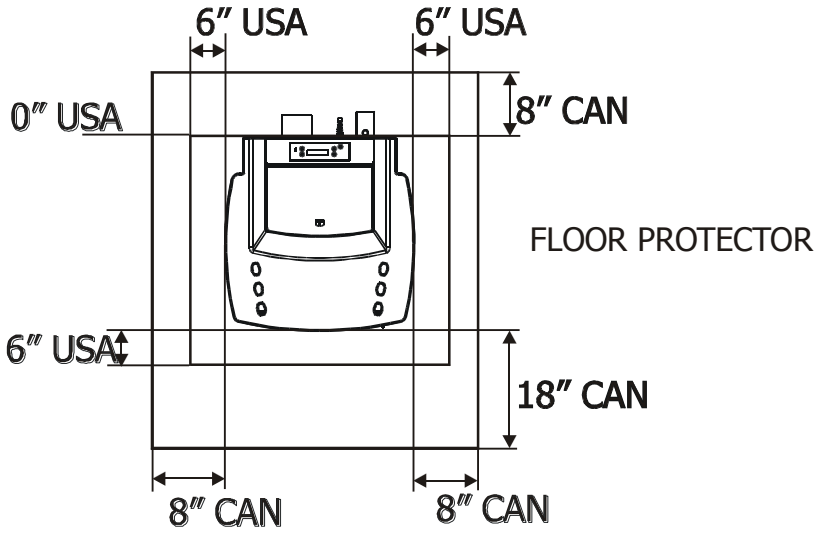
3.2. INSTALLATION

When installing and operating your MCZ Ego/Star Pellet Stove, respect basic safety standards. Read these instructions carefully before you attempt to install or operate the Ego/Star. Failure to do so may result in damage to property or personal injury and may void the product warranty. Consult with your local building code agency and insurance representative before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections. Several issues must be addressed when selecting a suitable location for your Ego/Star Pellet Stove. Observing required clearances to combustible materials, the proximity to a safe chimney or venting system, and the accessibility of electrical supply must all be considered. In addition, selecting a location that takes advantage of the building's natural air flow is also desirable to maximize the heating effectiveness of the heater. In many cases, this is a central location within the building. Adequate combustion and ventilation air must be provided. See Page 11 about venting.

Place the stove on a noncombustible floor surface. If the floor surface is made of a combustible material, (such as carpet, vinyl or wood), a floor protector must be installed between the bottom of the unit and the floor. The floor protector must be 3/8 inch minimum thickness of non-combustible material extending beneath the heater and extending to the front, side, and rear as indicated in the figure below. Place the stove away from combustible walls at least as far as shown in the pictures on the right side for different installation conditions. Note that the clearances shown are minimum for safety but do not leave much room for access when cleaning or service is needed.



3.2.1. Alcove installation

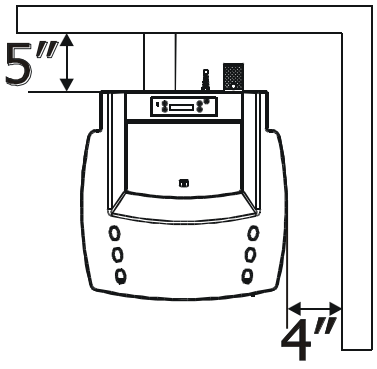
As follows the minimum distances for an alcove installation:

Min. Alcove Height: 60″

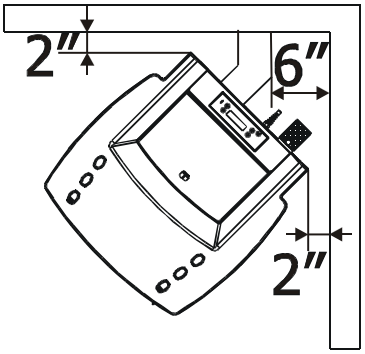
Min.Alcove Side Wall to appliance: 4″

Max.Alcove Depth: 34″

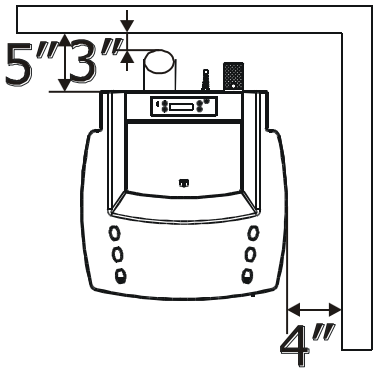
PARALLEL INSTALLATION
BACKWALL VENT EXIT



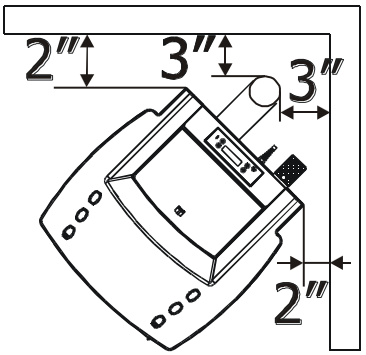
CORNER INSTALLATION
BACKWALL VENT EXIT



PARALLEL INSTALLATION
CEILING VENT EXIT



CORNER INSTALLATION
CEILING VENT EXIT



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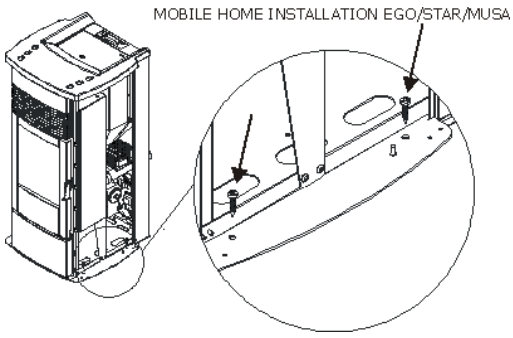
3.3. MOBILE HOME INSTALLATION

When installing the Ego/Star in a mobile home several requirements must be followed:

1. The unit must be bolted to the floor. This can be done with 1/4" lag screws through the 2 holes in the base plate shown in figure
2. The unit must also be connected to outside air (See page 29).
3. Floor protection and clearances must be followed as shown on page 16.
4. Unit must be grounded to the metal frame of the mobile home.



Floor fixing of the appliance

CAUTION: In mobile home installations the appliance must be vented to the outside. The user must routinely inspect the point where air is drawn in to insure that it is clear of leaves/debris and ice or snow.

Due to high temperatures, the Ego/Star should be placed out of traffic and away from furniture and draperies. Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burn to skin and/or clothing. Young children should be carefully supervised when they are in the same room as the stove. Clothing and other flammable materials should not be placed on or near the Ego/Star Pellet Stove.

Mobile/manufactured home regulations do not allow installation in rooms designated for sleeping.

Mobile home installation should be done in accordance with the manufactured home and Safety Standard (hud), CFr 3280, Part 24.

THE STOVE IS HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

KEEP COMBUSTIBLE MATERIALS SUCH AS GRASS, LEAVES, ETC. AT LEAST 3 FEET AWAY FROM THE POINT DIRECTLY UNDER THE VENT TERMINATION.

THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF AND THE EFFECTIVENSS OF ALL VAPOR BARRIERS WITHIN THE STUCTURE MUST BE MAINTAINED

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3.4. VENTING

3.4.1. Avoiding Smoke and Odors

Negative Pressure, Shut-down, and Power Failure:

To reduce the probability of back-drafting or burn-back in the pellet burning appliance during power failure or shut-down conditions, the stove must be able to draft naturally without exhaust blower operation. Negative pressure in the house will resist this natural draft if not accounted for in the pellet appliance installation.

Heat rises in the house and leaks out at upper levels. This air must be replaced with cold air from outdoors, which flows into lower levels of the house. Vents and chimneys into basements and lower levels of the house can become the conduit for air supply, and reverse under these conditions.

3.4.2. Vent Configurations

To reduce probability of reverse drafting during shut-down conditions, MCZ strongly recommends:

• Installing the pellet vent with a minimum vertical run of five feet, preferably terminating above the roof line.

• Installing the outside air intake at least four feet below the vent termination.

To prevent soot damage to exterior walls of the house and to prevent re-entry of soot or ash into the house:

• Maintain specified clearances to windows, doors, and air inlets, including air conditioners.

• Vents should not be placed below ventilated soffits. Run the vent above the roof.

• Avoid venting into alcove locations.

• Vents should not terminate under overhangs, decks or onto covered porches.

• Maintain minimum clearance of 12 inches from the vent termination to the exterior wall. If you see deposits developing on the wall, you may need to extend this distance to accommodate your installation conditions.

MCZ assumes no responsibility for, nor does the warranty extend to, smoke damage caused by reverse drafting of pellet appliances under shut-down or power failure conditions.

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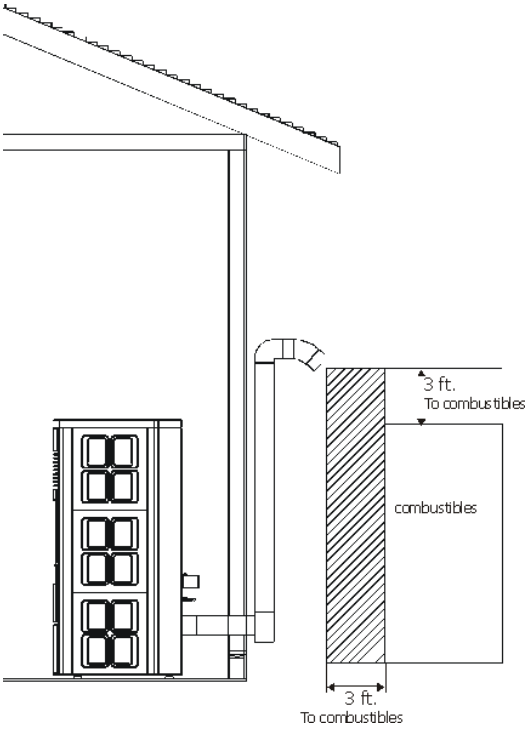
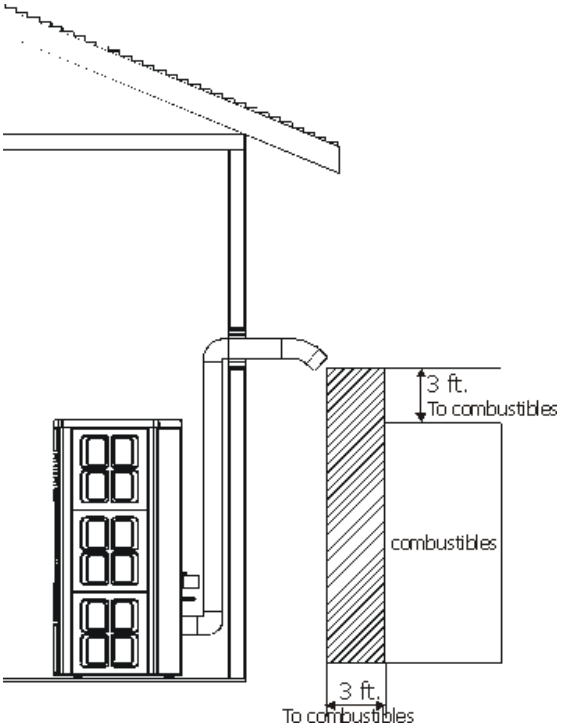
3.4.2.1. Wall outlet (method #1)

This method provides excellent venting for normal operation and allows the stove to be installed closest to the wall. Two and a half inches from the wall is safe; however, three inches allows better access to remove the rear panel. The vertical portion of the vent should be three to five feet high. This vertical section will provide natural draft in the event of a power failure. Note: do not place joints within wall pass-throughs.



3.4.2.2. Wall outlet (method #2)

This method also provides excellent venting for normal operation but requires the stove to be in-stalled farther from the wall. The vertical portion of the vent should be three to five feet high and at least three inches from a combustible wall. This vertical section will provide natural draft in the event of a power failure. Note: do not place joints within wall pass-throughs.



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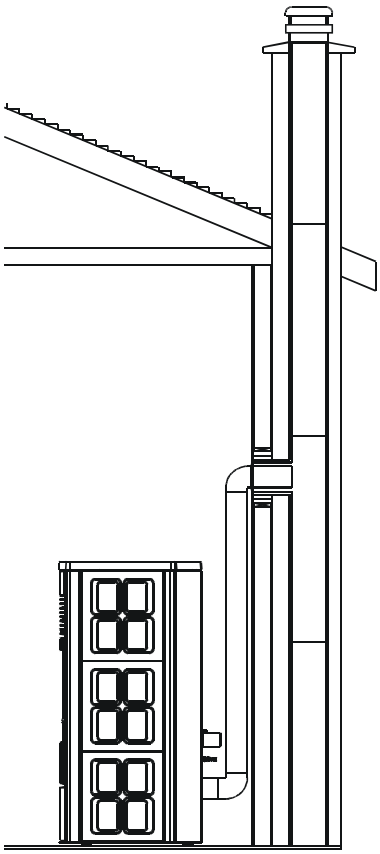
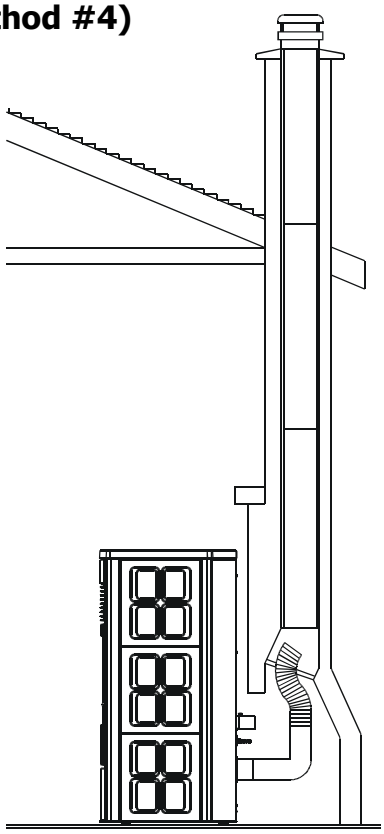
3.4.2.3. Installing into an existing chimney (method #3)



This method provides excellent venting for normal operation. Check your local code requirements. Some areas require that a liner be installed to the top of the flue, as shown in method method #6. This method will provide natural draft in the event of a power failure. If the chimney condition is questionable or if the flue size is larger than 8 X 8 inches, you should refer to method #6. If choosing this method, increase the vent pipe to 4 in. at the stove.

3.4.2.4. Installing into an existing fireplace chimney (method #4)



This method provides excellent venting for normal operation. Check your local code requirements. Some areas require that a liner be installed to the top of the flue, as shown in method #5. This method also provides natural draft in the event of a power failure. The damper area must be sealed with a steel plate or fiberglass. A cap should be installed on the chimney to keep out rain. If the chimney condition is questionable or if the flue size is larger than 8 X 8 inches, you should refer to Method #5. If choos-ing this method, increase the vent pipe to 4 in. at the stove.

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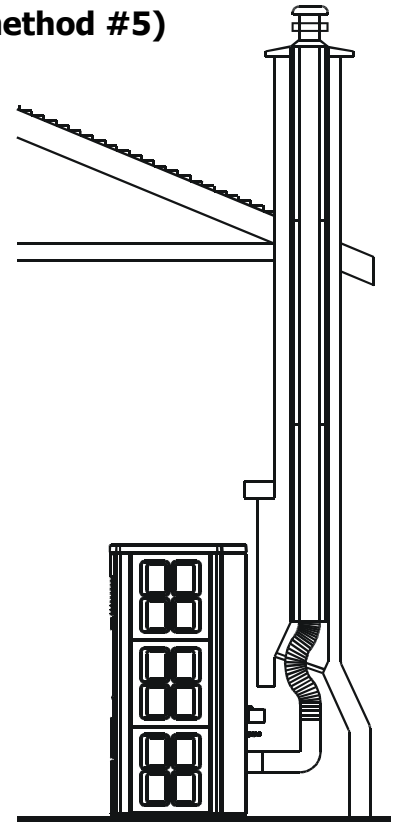
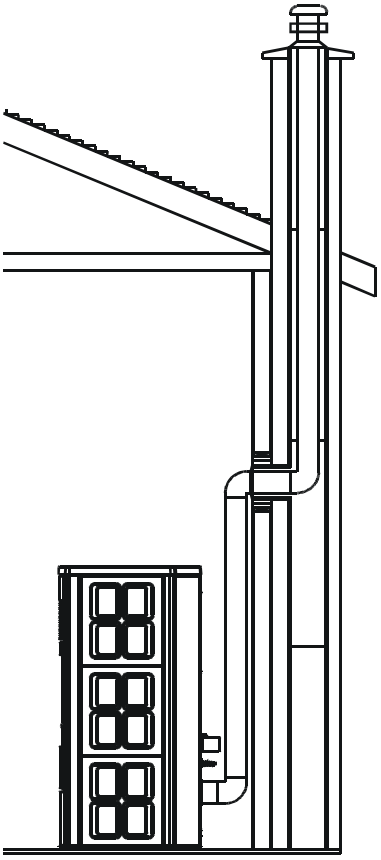
3.4.2.5. Installing into an existing fireplace chimney (method #5)

This method provides excellent venting for normal operation. This method also provides natural draft in the event of a power failure. Some places in the US and Canada, it is required that the vent pipe extend all the way to the top of the chimney. In this method a cap should also be installed on the chimney to keep out rain. Be sure to use ap-proved pellet vent pipe fittings. Seal pipe joints with silicone in addition to the sealing method used by the manufacturer. Pipe size should be increased to 4" using this method.



3.4.2.6. Installing into an existing chimney (method #6)

This method provides excellent venting for normal operation. This method also provides natural draft in the event of a power failure. Some places in the US and Canada, it is required that the vent pipe extend all the way to the top of the chimney. The pipe or liner inside the chimney should be 4" diameter and approved for pellet venting.In this method a cap should also be installed on the chimney to keep out rain.



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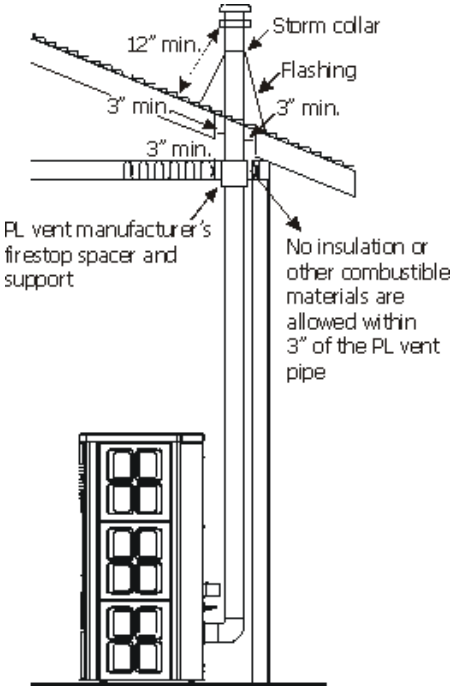
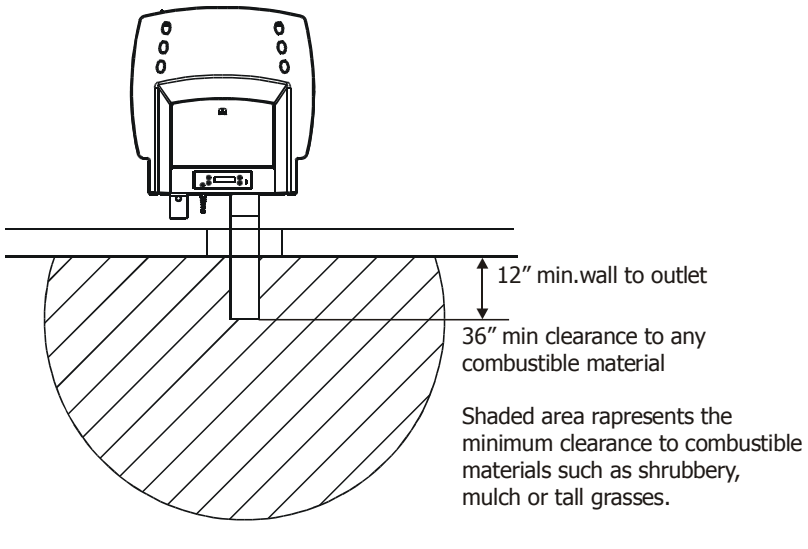
3.4.2.7. Installing through the ceiling vent (method #7)

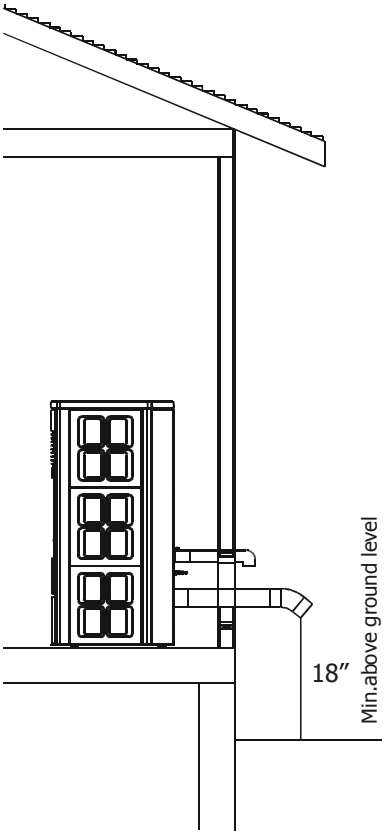

Storm collar
12" min.
Flashing
3" min.
3" min.
3" min.
PL vent manufacturer's firestop spacer and support
No insulation or other combustible materials are allowed within 3" of the PL vent pipe

Through the ceiling vent, follow PL vent manufacturers recommendations when using wall and ceiling pass through. **Note: Do not place joints within wall pass-throughs.**

Minimum flue vent configuration

It is required that outside air be installed with this venting configuration to reduce smoke and creosote smell in the room in the event of power failure.


12" min.wall to outlet
36" min clearance to any combustible material
Shaded area rapresents the minimum clearance to combustible materials such as shrubbery, mulch or tall grasses.



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3.4.3. Requirements for Terminating the Venting

WARNING: Venting terminals must not be recessed into a wall or siding.

NOTE: Only "pellet" vent pipe wall pass-throughs and fire stops should be used when venting through combustible materials.

NOTE: Always take into consideration the effect the prevailing wind direction or other wind currents will cause with flyash and/or smoke when placing the termination.

In addition, the following must be observed:

A. The clearance above grade must be a minimum of 18".[1]

B. The clearance to a window or door that may be opened must be a minimum of 48" to the side and 48" below the window/door, and 12" above the window/door.[1]

(With outside air installed, the clearances are 18" to the side and below and 9" above).

C. A 12" clearance to a permanently closed window is recommended to prevent condensation on the window.

D. The vertical clearance to a ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) from the center-line of the terminal must be a minimum of 18".

E. The clearance to an unventilated soffit must be a minimum of 12".

F. The clearance to an outside corner is 11" from center of pipe.

G. The clearance to an inside corner is 12".

H. A vent must not be installed within 3 feet (90cm) above a gas meter/regulator assembly when measured from the horizontal center-line of the regulator.[1]

I. The clearance to service regulator vent outlet must be a minimum of 6 feet.[1]

J. The clearance to a non-mechanical air supply inlet to the building or the combustion air inlet to any other appliance must be a minimum of 48" .[1]

K. The clearance to a mechanical air supply inlet must be a minimum of 10 feet.[1]

(with outside air installed, 6 feet)

L. The clearance above a paved sidewalk or a paved driveway located on public property must be a minimum of 7 feet.[1,2]

M. The clearance under a veranda, porch, deck or balcony must be a minimum of 12 inches.[1,3] **(B also Applies)**

NOTE: The clearance to vegetation and other exterior combustibles such as mulch is 36" as measured from the center of the outlet or cap. This 36" radius continues to grade or a minimum of 7 feet below the outlet.

[1]Certain Canadian and or Local codes or regulations may require different clearances.

[2]A vent shall not terminate directly above a side-walk or paved driveway which is located between two single family dwellings and serves both dwellings.

[3]Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor.

NOTE: Where passage through a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365. (if in Canada)

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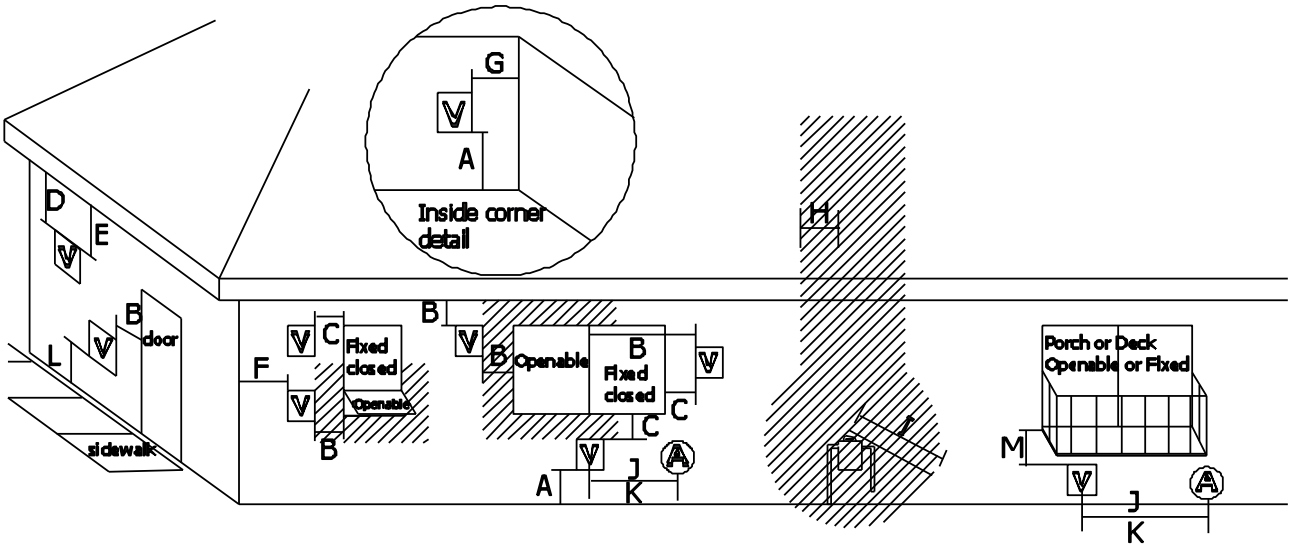

= Venting Terminal

= Air Supply Inlet

= Area where termination is not permitted

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3.5. PREPARATION AND UNPACKING

STAR AND EGO stoves are packed differently:

- ✓ The **EGO** stove has one crate
  - It contains the stove and the steel sides with the profiles (Fig.1)
- ✓ The **STAR** stove has two parts
  - One contains the stove and the profile for the ceramic or the soapstone
  - One contains the ceramic (fig.2). In this case there will be a single package for the structure (the cardboard with the ceramics will be placed on top of the stove crate)
  - or Soapstone (fig.3) (in this case there are two packages - structure + soapstone pallet)

Open the packaging, remove the four screws that secure the base of the stove to the pallet, two to the right and two to the left (see figure 4), and position the stove in the selected place, ensuring that it is complies with the above instructions.

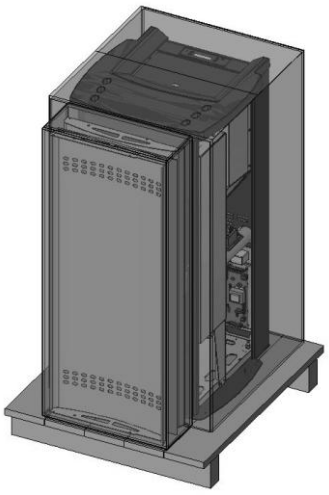

Figure 1 – Example of packaging stove + steel sides (Ego stove)

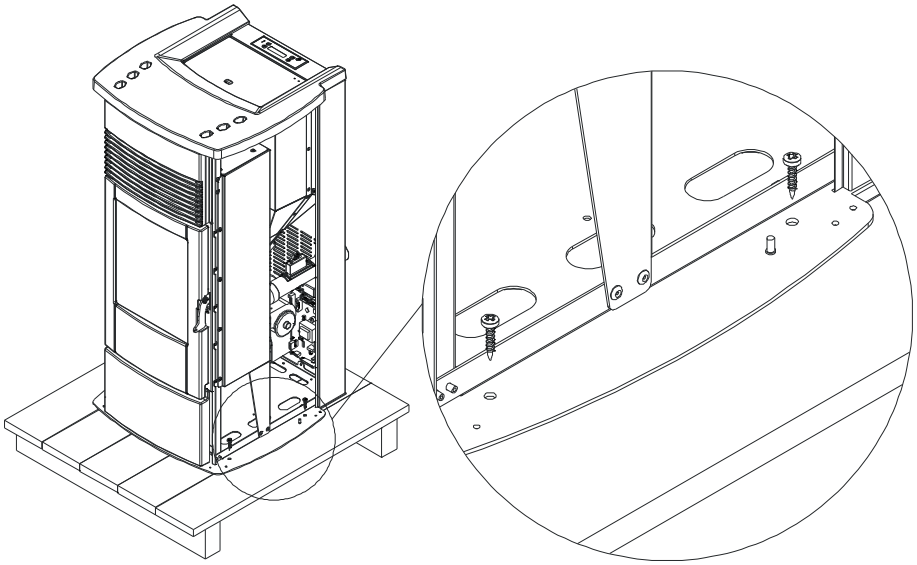

Figure 4 - Removing packaging screws (in figure Ego stove)

Figure 2 - Example of packing for ceramics

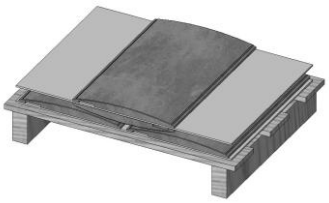

Figure 3 - Example of soapstone packaging

The stove body or unit must always be kept in a vertical position when moved and should be moved with a dolly or hand truck. Special care must be used to protect the door and the glass from impacts that would damage them.

Moving the product must always be done with care. If possible, unpack the stove in the area where it is going to be installed.

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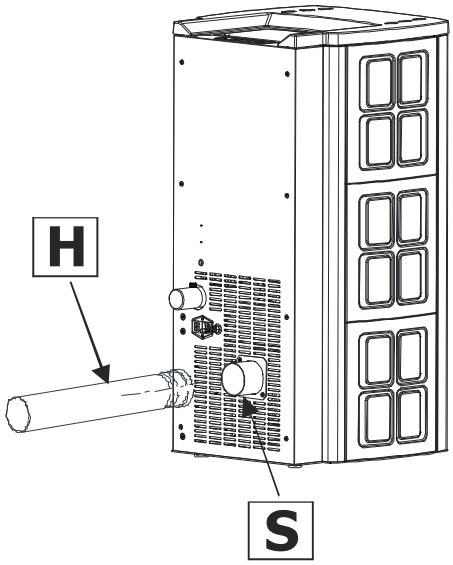
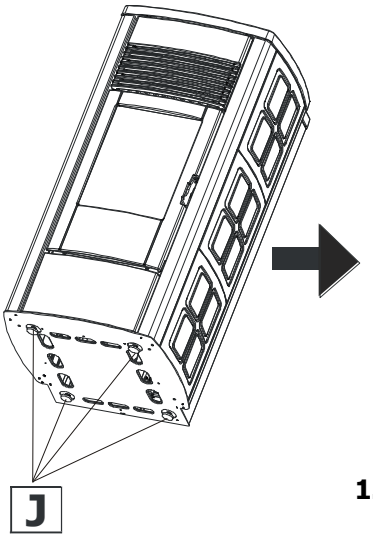
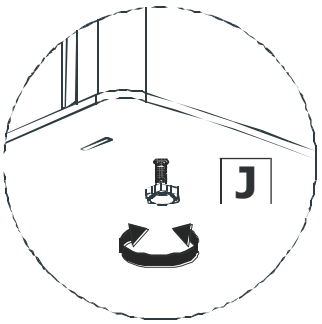
Position the stove without its cladding and connect it to the flue pipe. Use the four adjustable feet **(J)** to get the stove correctly leveled so that the smoke outlet **(S)** is lined up with the connecting pipe **(H)** . Once the operations for connection are complete, assemble the cladding (ceramic or steel sides).

If the stove needs to be connected to a pellet vent which goes through the wall take care to make sure that the joint is not stressed.

If the smoke outlet of the stove is forced or used improperly to lift it or position it, the operation of the stove can be damaged irreparably.







1. Turn the feet clockwise to lower the stove
2. Turn the feet counter-clockwise to lower the stove

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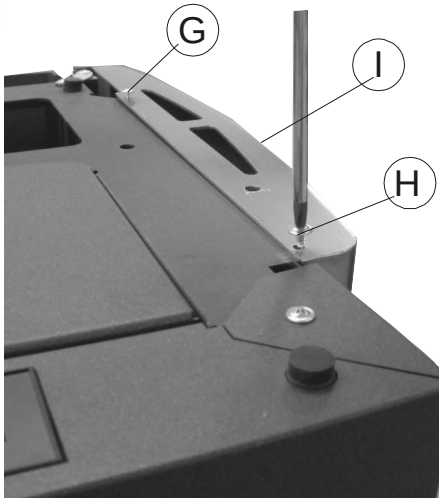
3.6. LATERAL CLADDING ASSEMBLY

THE 6 CERAMICS AND THE 4 SIDES MADE OF SOAPSTONE THAT ARE LATERAL TO THE STAR STOVE ARE ALL THE SAME.



Assembly of profiles to insert steel sides (for EGO stove only)

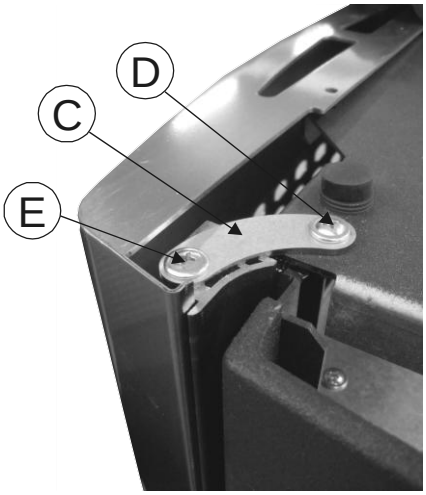
Remove, on the upper part, the cast iron top (**A**).

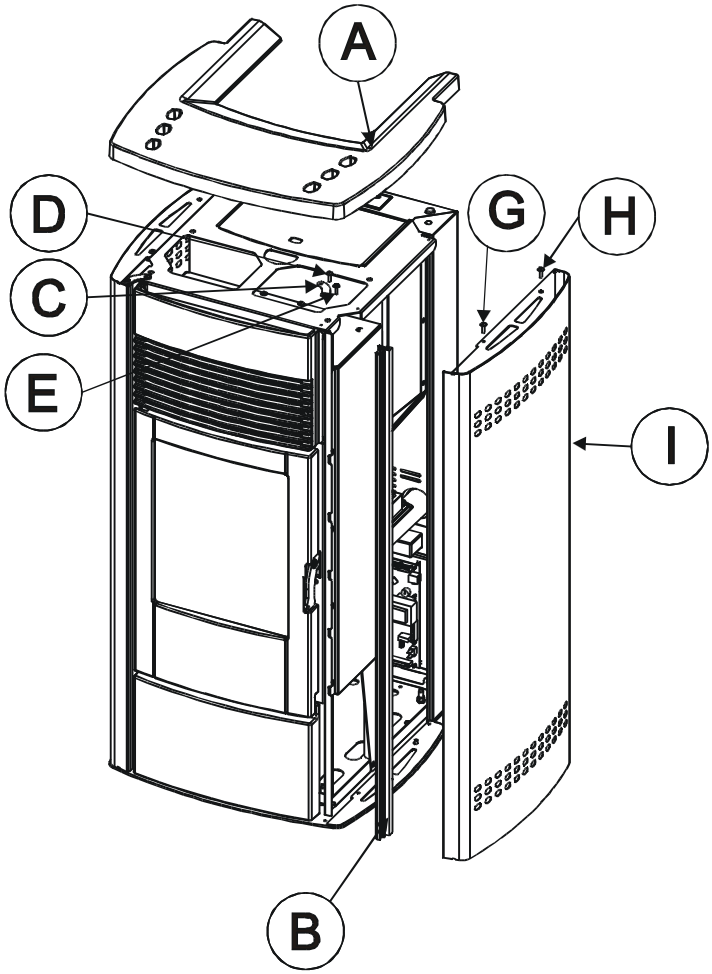
Take the two profiles (**B**) to be assembled on the front part of the stove (one to the right and one to the left). Make sure that the profile (**B**) at the bottom enters the hole predisposed on the base for securing purposes, and along the side enters the blade (**B1**) predisposed in the stove along its entire height. Once this operation is performed, take the piece (**C**) with the two screws (**D** and **E**) and secure the profile on the top part of the stove. The screw (**D**) must be secured on the upper sheet metal of the stove, while the screw (**E**) must be secured on the area predisposed on the profile (**B2**).

Take the side (**I**) and secure it to the upper sheet metal of the stove with the two screws (**G** and **H**) provided.

In the front part it must be inserted in the housing (**B3**) of the profile (**B**).

Repeat the same operation for both sides. Reposition the cast iron top.





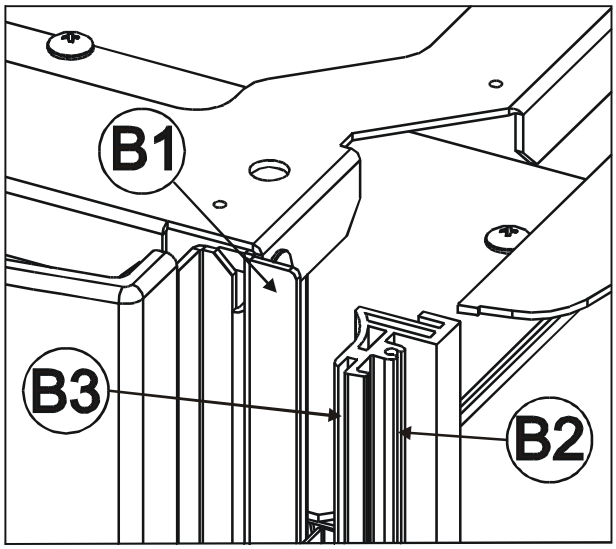


Figure 5 - EGO stove steel sides

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Assembly of profiles to insert in the ceramic and soapstone sides (for STAR stove only)

Remove, on the upper part, the cast iron top (**A**).

Take the four profiles (**B**) to be assembled on the front and rear part of the stove (two to the right and two to the left). Make sure that the profile (**B**) at the bottom enters the in correspondence to the two holes predisposed on the base for securing purposes, and along the side enters the blade (**B1**) predisposed in the stove along its entire height. Once both profiles are assembled on one side, take the piece (**C**) with the four screws (**D-E-F-G**) and secure it on the upper part of the stove (**F-D**) and in correspondence to the element predisposed on the profile (**B2**) for screws **G-E**.

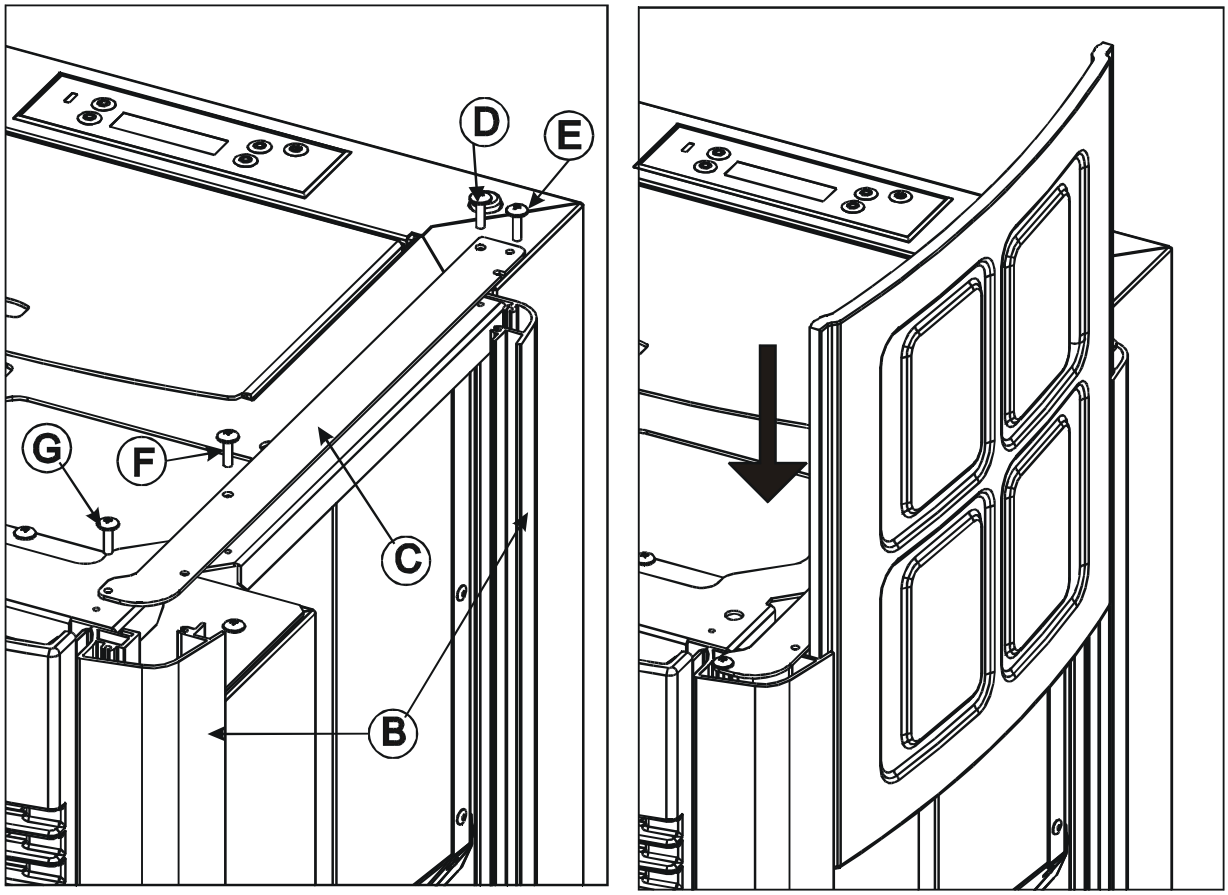
At this point take the ceramics (3 per side) or the soapstone (2 per side) and insert them on the profile (**B**) in correspondence to the element (**B3**) from above downwards.

You are advised to use small felt pads (two on the right and two on the left) to be applied at the tips of the ceramics (inwards) in correspondence to the part of the tile that comes into contact with the sheet metal profile (B3).

This prevents the ceramic from coming into contact with the metallic parts of the structure and compensates any differences in thickness of the tile.

Repeat the same operation for both sides. Reposition the cast iron top.

Figure 6 - STAR stove sides



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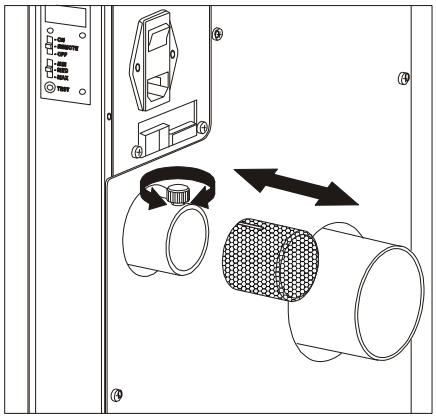
3.7. INSTALLATION OF AIR FILTER

Before placing the stove near the wall for connection to the flue pipe and to the electrical mains, install the air filter provided with the stove.

The cylindrical filter is composed of a metallic net and is already installed on the stove

The filter must be inserted on the air inlet pipe 2".

To remove it, slightly loosen the screw with the knob on the air inlet, insert the filter matching it with the filter groove with the screw of the knob and then secure it by tightening the knob.



Installation/removal of air filter

ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

3.7.1. Outside Air

Connection to outside air is required for all mobile home installations, and where building codes require. To install outside air use 2" I.D. flex pipe. The maximum length run of this pipe is 15 feet. If a longer run is needed, the size must be increased to 3". The air filter shall be moved from the air inlet of the stove to the final part of the flex pipe, to keep dust, birds, rodents, etc. out of the pipe.

3.8. MAKING THE ELECTRICAL CONNECTIONS

Connect the supply cable first at the rear of the stove and then to an electrical outlet on the wall.

The main switch located on the rear of the stove should be switched on only when you want to light the stove.

If you do not intend to use the stove, it is advisable to keep it switched off.

Electrical connection of the stove

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4. OPERATION

4.1. PRE-LIGHTING WARNINGS

Do not touch the stove during the first lighting, as it is during this phase that the paint sets. If you touch the paint, you may expose the steel surface.

If necessary, touch up the paint with the aerosol spray in the original colour (see the section "Accessories for pellet stoves").

It is good practice to provide plenty of ventilation in the room during the initial lighting, as the stove will give off a small amount of smoke and smell of paint.

Do not stay near the stove, and as previously mentioned, ventilate the room. The smoke and the smell of paint will vanish after about one hour of operation. There are no health risks involved.

The stove will be subject to expansion and contraction during the stages of lighting and cooling down, and may therefore make slight creaking noises.

This phenomenon is absolutely normal, the structure being made of sheet steel, and must not be considered a fault.

It is extremely important to be sure not to take the stove to full heat straight away, but to bring it gradually up to temperature.

If in manual mode, use low heating powers (for example 1^a-2^a-3^a). During subsequent use, you will be able to run the stove on the highest heat settings (e.g. 4^a-5^a), but remember not to keep the stove running on full power for more than 60-90 minutes.

In this way you will avoid damage to the ceramic panels, the welds and the steel structure.

At first lighting the stove is already in manual mode. At first, it is advisable to use the only low and medium heating levels (from first to third power level).

Do not demand full heating performance straight away!

Try to get familiar with the commands given from the control panel.

Try to memorize the messages that the stove provides on the display.

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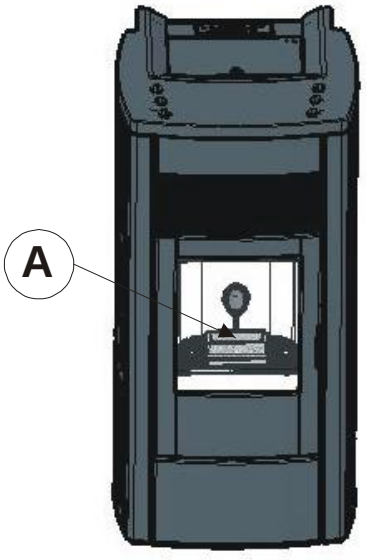
4.2. PRE-LIGHTING CHECK



Check that all the safety conditions described above have been met.

Make sure you have read and completely understood the contents of this instruction booklet.

Remove any components which might burn from the firebox and from the glass (various instructions and adhesive labels).

Check that the grate **A** is properly positioned and rests correctly on the base.

After long periods of disuse, remove from the hopper (**using a vacuum cleaner with an extension**) any remains of pellets which have lain there for some time, since they may have absorbed moisture, which changes their original characteristics and makes them unsuitable for burning.

4.3. LOADING THE PELLETS

Fuel is loaded from the upper part of the stove by opening a door. Pour the pellets in the hopper. When empty, it will hold slightly more than a 15 kg sack.

This is easier if performed in two steps:

- Pour half of the contents into the hopper and wait for the fuel to settle on the bottom.
- Then pour in the rest

Never remove the protection grille in the hopper. When filling, do not let the sack of pellets touch any hot surfaces.

Do not place any type of fuel in the hopper other than pellets that are compliant with the specifications provided previously.

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4.4. CONTROL PANEL/REMOTE CONTROL DISPLAY (accessory)

4.4.1. Control panel logic

Reported below is some useful information to understand the navigation logic and use the control panel:

- The luminosity of the control panel is switched off after about 30" seconds of the keyboard being inactive. To switch on the back lighting again just press any of the buttons on the panel.
- The first screen that appears displays the operating status of the stove (ON, OFF, LIGHTING, SHUTDOWN..) that alternates with any other settings activated (TIMER, SLEEP, AUTO ECO..)
- By pressing any of the 4 keys around the display (C D E F) you access the stove's operation settings screen (level of the flame, fan, set temperature, manual or automatic mode..). From this level the 4 keys around the display assume "dedicated" functions, i.e. they directly refer to the corresponding words that appear in the 4 corners of the display (e.g.: the word in the top right hand corner refers to the D key).
- When a setting is modified in any menu level without confirming the modification using the "OK" key and leaving the keypad inactive for some seconds, the initial screen reappears and the modifications are not saved.
- If from any menu level the on/off (B) key is briefly pressed, the display is automatically taken back to the initial screen (stove operating status) without saving any modifications not confirmed with the "OK" key.

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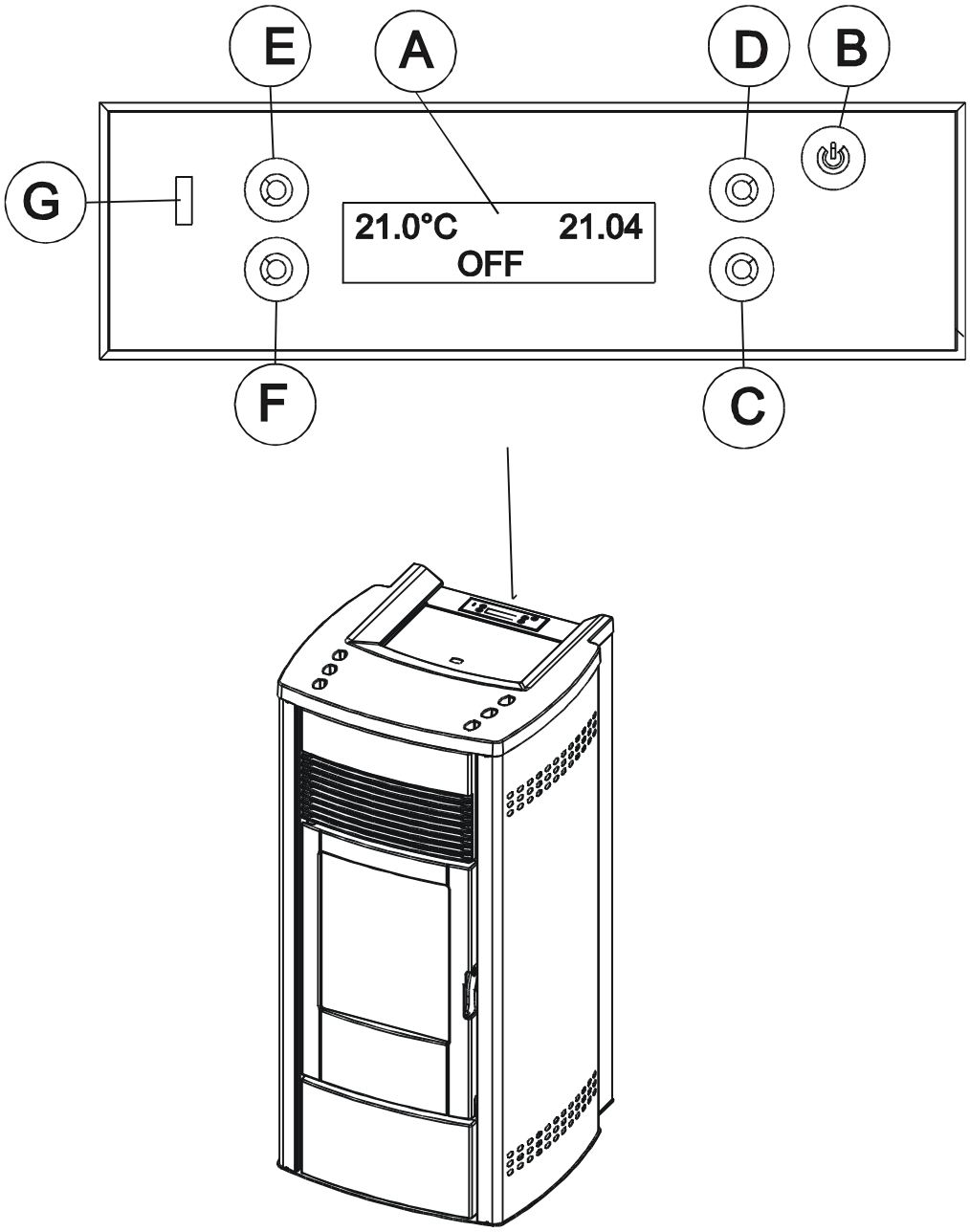

KEY

A. Display; indicates a series of information about the stove, as well as the identification code for any operating anomaly.

B. ON/OFF key or ESC (exit the menu).

C. Program selection key (next screen)

D. Program selection key (next screen)

E. Program selection key (next screen)

F. Program selection key (next screen)

G. Receiver for the remote control

N.B. on the control panel it will be possible to set the language

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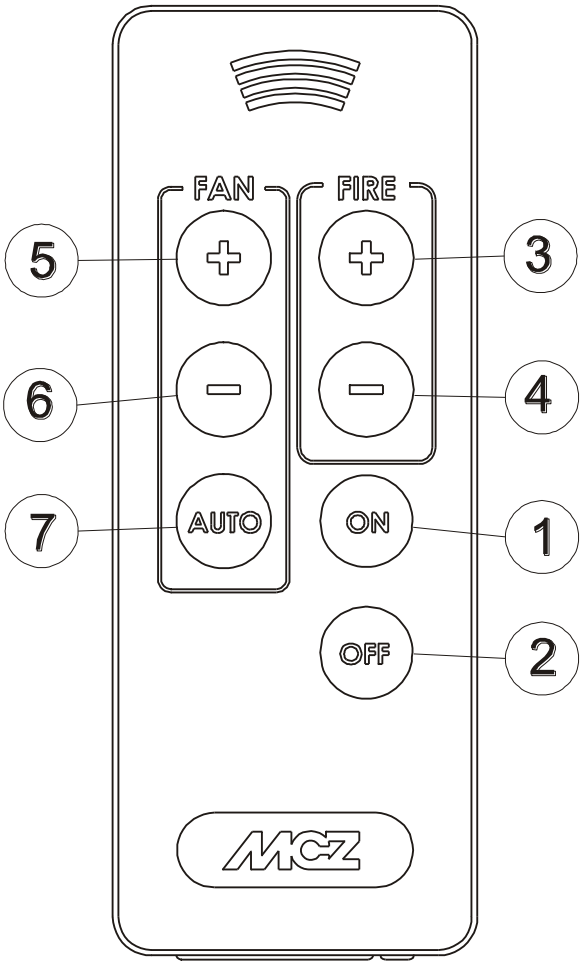
4.4.2. Remote control (accessory)



KEY

1. ON key 2. OFF key 3. Key that increases the flame's power level. The maximum power is 5. 4. Key that decreases the flame's power level. 5. Key that adjusts the speed of the hot air fan. If the AUTO function (key 7) activates, this means that the ventilation is connected to the power.	6. Key that adjusts the speed of the hot air fan. If the AUTO function (key 7) activates this means that the ventilation is connected to the power. 7. Key that sets the room fan speed in automatic mode (connected to the flame's power level) N.B. from the remote control it is not possible to activate the ECO-STOP function

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4.4.3. General characteristics of the LCD remote control

The **EGO** and **STAR** stoves are mainly controlled by the control panel that is found above the stove. As an accessory, it is in any case possible to purchase the remote control that manages the main functions: on/off, power adjustment, hot air fan speed adjustment, automatic function.

Keep the remote control away from direct heat and water.
It is advisable to keep it out of the reach of children.

4.4.4. Type of batteries and replacement

To substitute the battery, it is necessary to extract the battery-holder (as shown on the figure on the back of the remote control), and remove or insert the batteries following the symbols printed on the remote control and the battery itself.

Operation requires **1 CR 2025 Lithium battery.**

Used batteries contain metals which are harmful for the environment; they must therefore be disposed of separately in the special containers.

If the remote control is off due to the absence of batteries, it is possible to control the stove from the control panel, located in the upper part of the stove.

The batteries provided have a limited lifespan to allow first lighting of the stove and for the user to learn how to use the device.

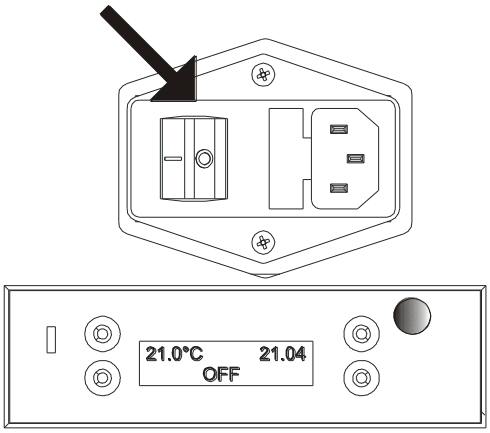
When replacing the batteries, ensure correct polarity by observing the symbols on the internal compartment of the remote control.

4.5. SETTINGS TO CARRY OUT BEFORE FIRST LIGHTING

Once the power cord is connected to the rear part of the stove, place the switch, also on the rear, to position **(I).**

The lighted button of the switch will come on.

The stove is off and the screen on the control panel will appear with the word **OFF;** by pressing any key the screen the word **MENU** will appear.



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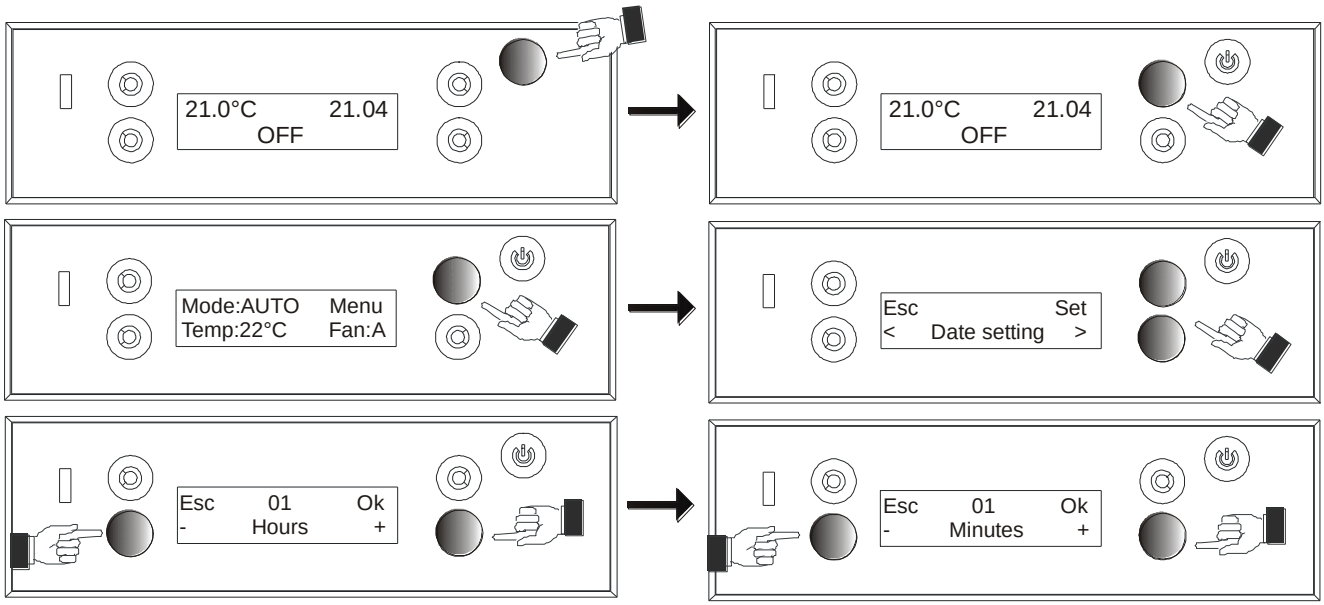
4.5.1. Setting current day and time

By pressing the key concerning **MENU** the word **SET** will appear. Type **SET** and the program will appear to change:
hour
minutes
day
day of month
month
year
To modify the time, for example, when **TIME** appears on the display, press **SET**, the time will begin to flash in the centre of the display. With the lower left or right keys modify the hour and subsequently the minutes, day etc… etc… in the same way and according to need. All the modification made must be confirmed by pressing **OK, otherwise they will not be saved**. The **ESC key returns to the previous screen without saving the modifications**.

If for 10 seconds the keypad of the control panel is inactive, it returns to the start screen without saving the modifications.

TIME ADJUSTMENT



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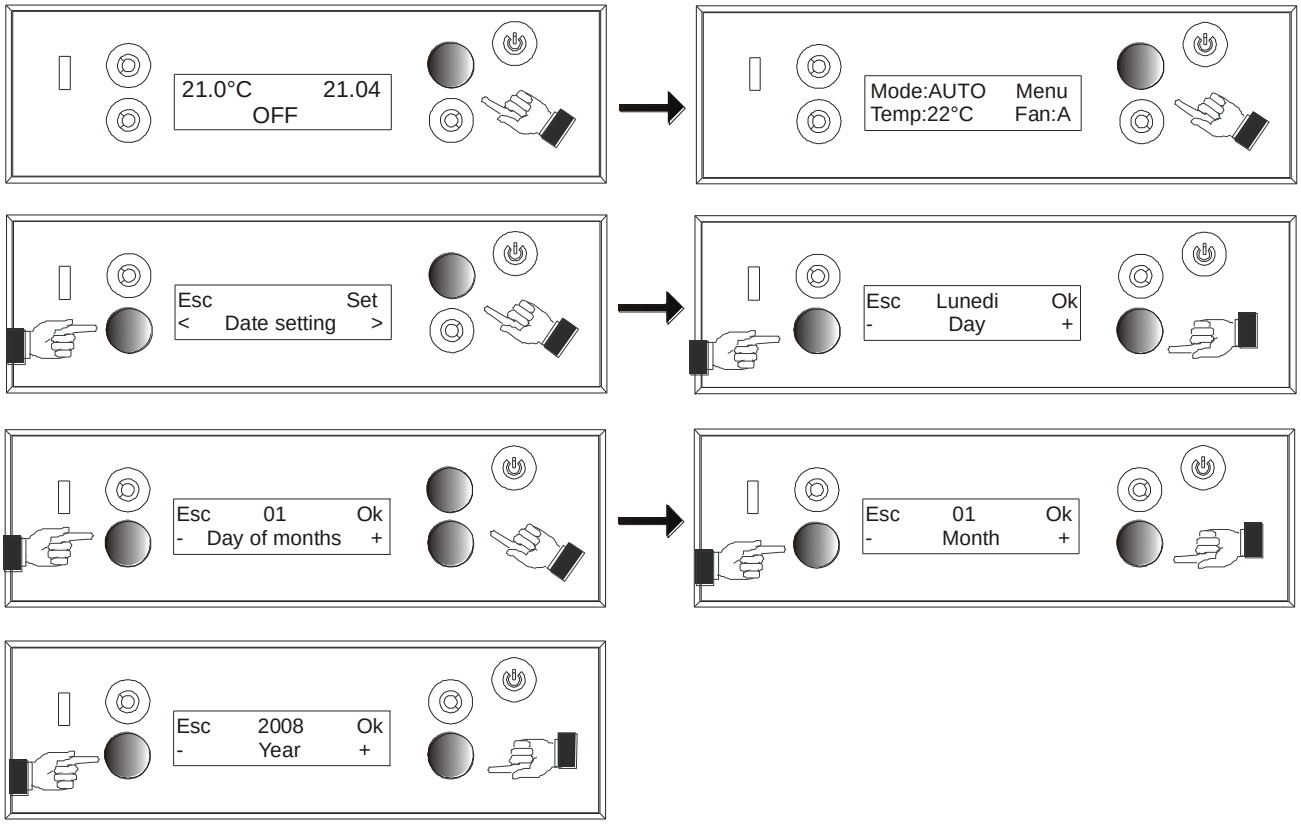
DAY/DAY NUMBER/MONTH/YEAR ADJUSTMENT



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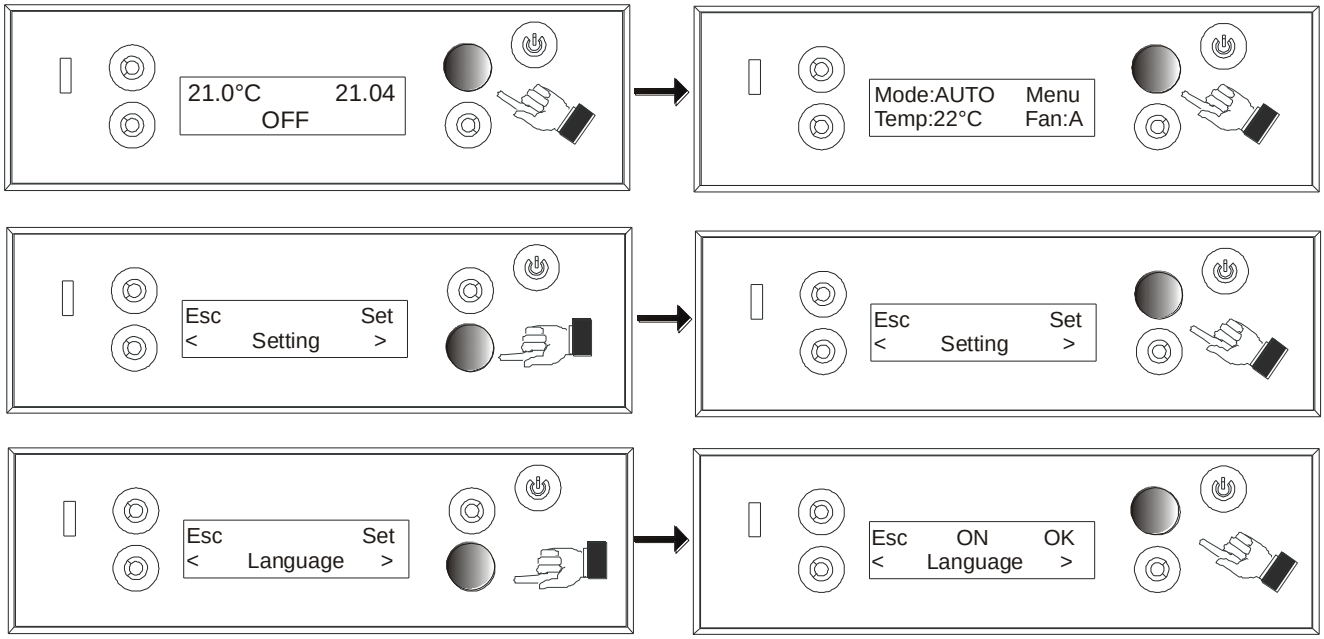
4.5.2. Setting the language

From the start screen, press any key and the screen with the word **MENU will appear**.
Press the **MENU** key then scroll downwards to the right until the word **SETTING** appears, press **SET** and scroll downwards until the word **LANGUAGE** appears, press **SET** again and set the language.

The following abbreviations are used for the days of the week deriving from the language set in the panel: In the case of English:

MO	➔	Monday
TU	➔	Tuesday
WE	➔	Wednesday
TH	➔	Thursday
FR	➔	Friday
SA	➔	Saturday
SU	➔	Sunday



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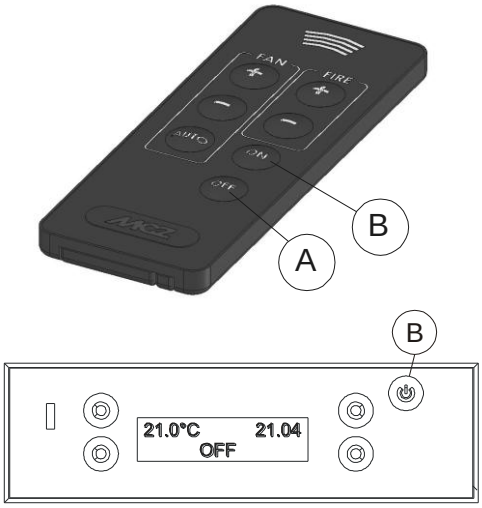
4.6. FIRST LIGHTING



4.6.1. ON/OFF from the control panel or remote control (if purchased)

To switch the stove on and off, press the key **B for** 2 seconds on the control panel or the **A button** on the remote control (if purchased).

After a start-up phase that lasts about 15 minutes, the stove will come up to full operating power.
After the stove is shut down by pressing button **B** on the remote control or the B button on the control panel, the cooling-off procedure begins. This includes the interruption of fuel loading, the cleaning of the grate and the continuation of ventilation until the stove is sufficiently cold. This phase may last from 20 to 40 minutes depending on how long the stove was lit for and where it is located.

4.6.2. Note: first ignition

The first attempt at ignition may not be successful, since the auger is empty and it is not always able to fill the grate with required amount of pellets in time to insure normal ignition

CANCEL THE ALARM CONDITION FROM THE CONTROL PANEL (see paragraph 4.14)., REMOVE PELLETS IN THE GRATE AND REPEAT LIGHTING

After repeated attempts at lighting, if there is no flame even though pellets are flowing normally, check that the grate is correctly positioned. It must be **placed where it sits perfectly to its housing and free of any ash or carbon build up**. If no abnormalities are found, it means that there may be a problem with the stove components or that installation may not have been carried out correctly.

REMOVE THE PELLETS FROM THE BURNER AND CONTACT AN AUTHORISED MCZ TECHNICIAN.

4.7. OPERATING MODE

STAR-EGO stoves have two operating modes: **MANUAL** and **AUTOMATIC**.

4.7.1. Manual and automatic

The stove can operate in one of these two different operating modes.

MANUAL mode allows only adjustment of the flame from out-put power 1 to power 5, ignoring any ambient temperature measurement. This mode is indicated by the word **MANU** on the control panel.

AUTOMATIC mode lets you set the desired temperature in the room where the stove is installed. The stove will control its power automatically in order to reach and maintain the set temperature in the room. This mode is indicated by the word **AUTO** on the control panel.

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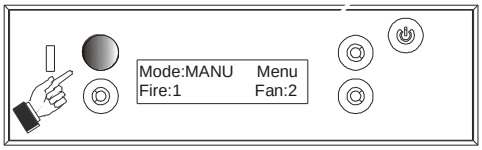
With this mode you can also use an advanced function called **AUTO-ECO** which is described later (*paragraph 4.7.4.*)

At each lighting, the stove automatically sets to the operating mode that it was in the last time it shut down.

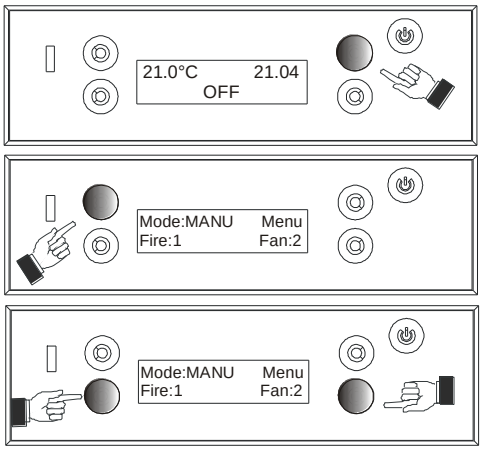
4.7.1.1. Changing from manual to automatic mode

It is possible to switch from the MANUAL function to the AUTOMATIC function and vice-versa by selecting the related key on the control panel.



4.7.2. Manual mode

In this mode you can only vary the heat out-put. This is done selecting the desired level or power 1-5.
By pressing the switch behind the stove the display of the panel is set to **OFF**, by pressing any key the screen with the word **MENU** will appear.
With the upper left button select the **MANU** function (**MANUAL mode**). In this mode, using the bottom left button (**F**) it is possible to adjust the 5 heating levels. With the bottom right key (**C**) the speed of the distribution blower is adjusted.



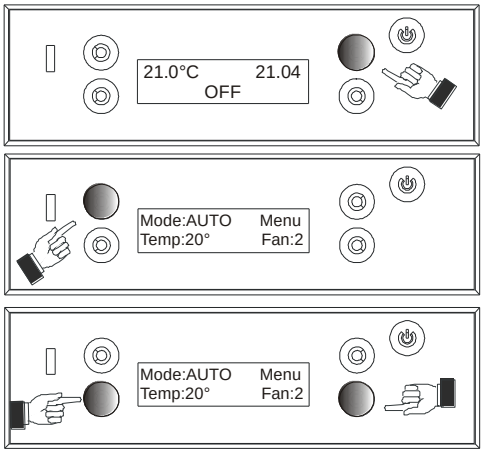
Manual mode

4.7.3. Automatic mode

Whereas **MANUAL** mode lets you set a constant out-put level with no variation over time, **AUTOMATIC** mode lets you set the desired temperature to be reached in the room. In this operating mode the stove will automatically vary the heat out-put to constantly maintain the temperature in the room at the set value.
From the first screen with the word OFF, press any key and the screen with the word MENU will appear.
With the upper left button select the **AUTO** function (**AUTOMATIC mode**). In this mode using the bottom left button it is possible to adjust the temperature desired in the room.

Upon reaching the desired temperature in the room, the stove will gradually go to minimum power. If the room temperature drops below the set temperature, the stove will gradually come back up to maximum hearing performance.

The room temperature is highlighted by the control panel and is measuring the room temperature from the probe located near the on-off switch on the bottom rear of the stove.



Automatic mode

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4.7.3.1. Room sensor

The room sensor (**B**) is placed behind the stove near the switch. You are advised to extract the room sensor so that it extends out as in figure (about 2 ½"). This way it is not thrown off by the heat of the stove. It is advisable to do this during installation, since before extracting the probe (**B**) it is necessary to take off the clamp (**C**) that keeps it connected; operation possible by working inside the stove thus without the sides. To extract the probe (**B**) it is necessary to unscrew the protection cap (**A**) and slowly pull the probe (**B**). After extracting the probe (**B**) sufficiently, close the protection cap (**A**) again.

ATTENTION! Once the clamp that binds the probe wire is taken off, avoid it coming into contact with the hot parts of the stove.

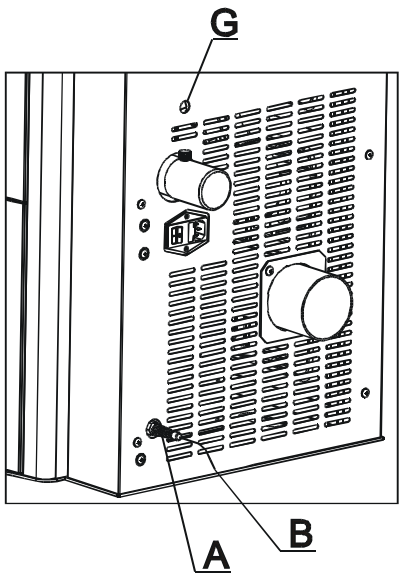


Fig.7 - Room temperature sensor

4.7.3.2. External thermostat connection

It is possible to connect the stove to an external thermostat. To make this connection it is necessary to acquire the interface D (optional) that is connected to the motherboard (E) of the stove on the manifold (F) as indicated in the diagram below and in pag.53 par.7.

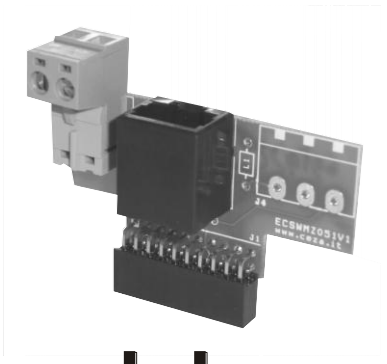


Fig.9 - Interface for the environment thermostat

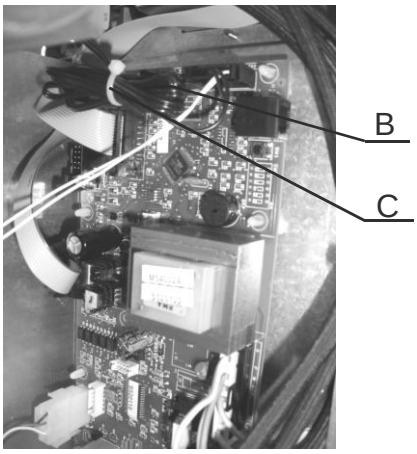
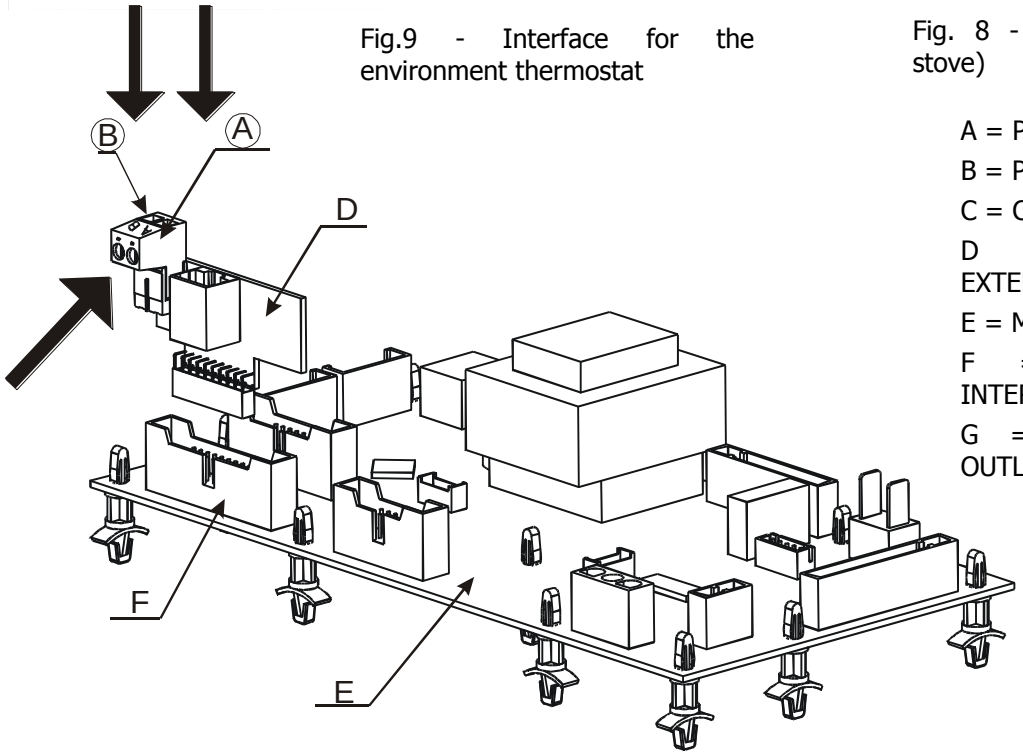


Fig. 8 - Motherboard (internal stove)



A = PROTECTION CAP
B = PROBE (FLUSH)
C = CLAMP
D = INTERFACE FOR EXTERNAL THERMOSTAT
E = MOTHERBOARD
F = CONNECTOR FOR INTERFACE CONNECTION
G = HOLES FOR CABLE OUTLET

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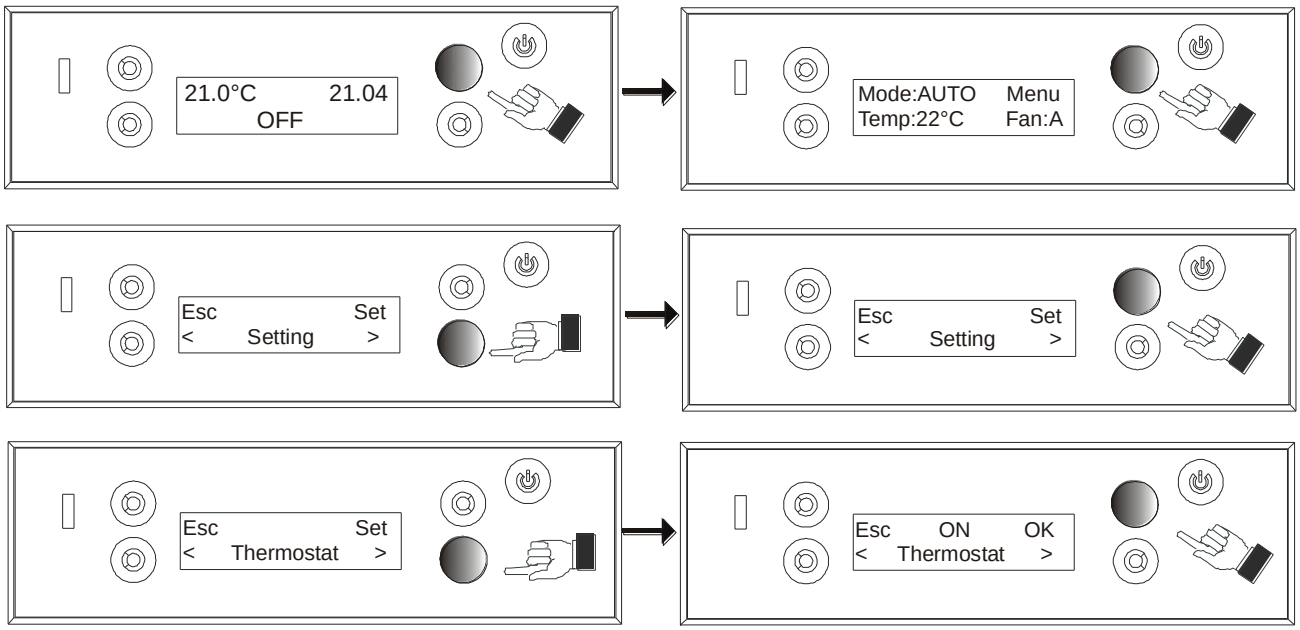
On the terminal indicated by the arrow, on the housings (**A**) and (**B**) insert the two wires of the room thermostat. These wires must pass through the hole **G** on the back of the stove. Thermostat and related electrical cables are the user's responsibility. Installation by a specialized technician is advised.

Once the thermostat is connected, the temperature detected by the probe will continue to appear on the control panel of the stove however only the temperature set on the thermostat will be used to control the out-put.

The activation of the thermostat (on/off) on the control panel is possible from the menu, settings, on/off option thermostat, as explained in the diagram below.



4.7.4. Automatic mode with AUTO-ECO

This mode changes stove operation in **automatic mode.** Upon reaching the temperature set by the user, the stove goes to power level 1 for a short period of time. At that point if the temperature remains constant and above the set temperature the stove will shut down. The stove comes back on automatically only when the room requires heat again, but not before a period of time has passed for the stove to cool off. This option is advisable only if the stove works in highly insulated rooms or where there is low heat dispersion over time.

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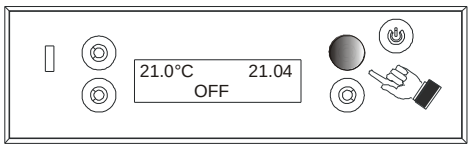
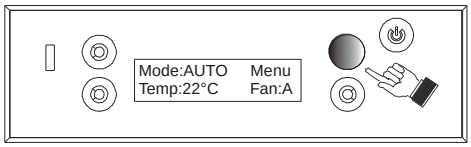
Example of operation in AUTO-ECO mode

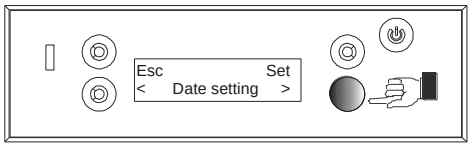
If the room temperature detected by the sensor and highlighted on the control panel is 15°C and the set temperature is 20°C, the stove will follow a pre-established ramp up to the 5th power. Once 20°C is reached, it goes into standby mode (STANDBY). When the room temperature drops below the value set on the control panel (for example 18°C) and a sufficient shutdown time has elapsed, the stove will come back on automatically and continue running until again reaching 20°C. If the temperature read by the room sensor remains above the value set on the thermostat (for example 20-21°C) the stove will remain off.

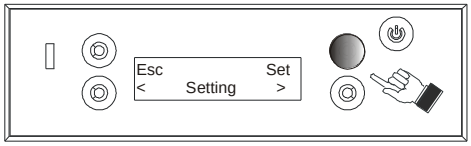
In this mode, lighting can be carried out by the user by resetting the thermostat temperature to a value greater than that in the room, or by shutting down the stove by pressing button **B** for a few seconds and then pressing the same button to re-light the stove.

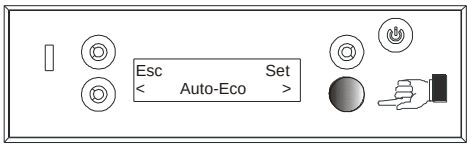
The "**AUTO-ECO**" mode does not need to be reset as it remains in memory from the last use.

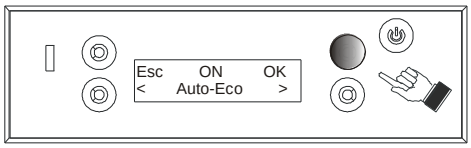












4.7.4.1. Activation/de-activation of AUTO-ECO mode

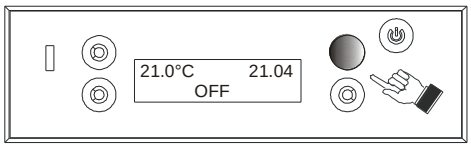
This mode makes it possible to optimize stove consumption in well-insulated rooms.

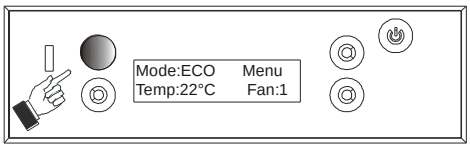
When this option is activated, on the display of the control panel the word **AUTO-ECO will appear.**

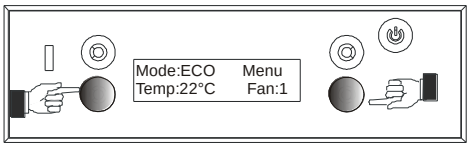
The display of the remote control will show the message **AUTO** along with the message **AUTO-ECO**.

From the first screen with the word OFF, press any key and the screen with the word MENU will appear.
With the bottom right button scroll to the word SETTINGS, press the top left key SET, scroll with the bottom right key until the word AUTO-ECO appears. Select SET again in the top right and with the bottom right key set OFF or ON and press OK to save the setting. Now going back to the initial menu you notice that the setting on the Mode is ECO. Therefore, using the bottom left or bottom right keys it is possible to set the room temperature and the distribution blower speed.

To disable the AUTO-ECO function follow the same procedure.







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4.8. BLOWER CONTROLS

The **Star** and **Ego** stove are equipped with an internal heat distribution blower. It can be set to 5 different speeds at any time regardless of the whether the stove is in manual or automatic mode.

5 speeds can be selected manually or be set up as an automatic function.

To select the speed, after pressing the bottom right button, press it again to increase or decrease the fan power.

In addition to **5th speed** there is an additional selection called **AUTO** function. With this option selected, the stove will automatically select the fan speed based on the flame level.

This option can be simply selected by pressing the bottom right key, scrolling through the various speeds 1-2-3-4-5. On the control panel until the letter **A** appears.

Example with ventilation set to AUTO:

If the flame is at power level 3, the fan will automatically set to speed 3. If the flame is at power level 5, the fan will automatically set to speed 5, and so on.

If the keypad of the control panel is inactive for 10 seconds the remote control automatically leaves the fan adjustment mode and does not confirm the last setting inserted.

In selecting the fan speed, it is advisable not to select very low speeds (1 or 2) when the stove is at maximum power as this may cause the stove to overheat.

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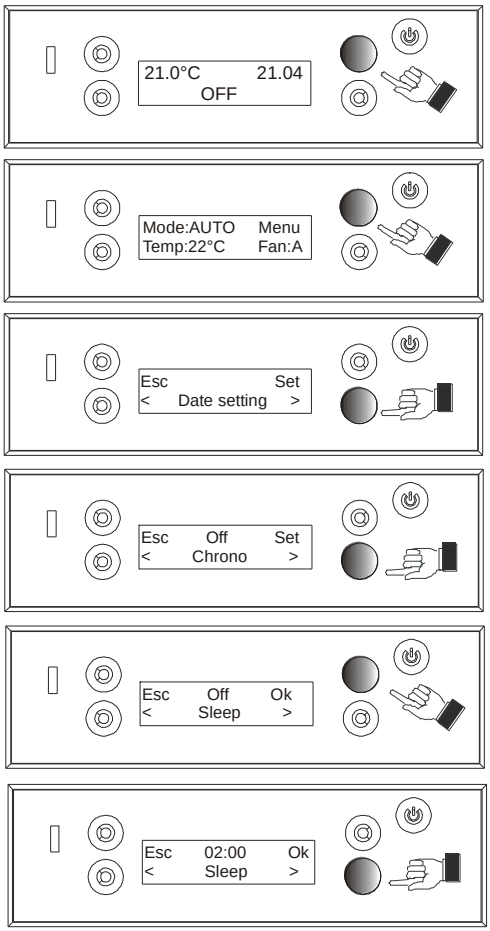
4.9. SLEEP FUNCTION

The purpose of this function is to make it faster to select a programmed shutdown, without the need change the stoves pre-set program.

The **SLEEP** function allows the user to set a countdown starting from a **minimum of 15 minutes up to a maximum of 8 hours**, after which the stove will shut off.
The SLEEP function can only be activated (and appear on the display) when the stove is lit, i.e. when the button B is kept pressed and the word **LIGHTING** appears on the display.
To set the function press **Menu** with the top right key. The word **Date and Time** appears, scroll with the bottom right key until the word **Sleep** appears, confirm with **Set**. With the bottom right key set the shutdown time.

The figures **00:00** appear in the centre of the display of the control panel; it is possible to choose the quantity of time by pressing the bottom right or left key according to whether you want to increase or decrease the time.

To confirm the choice press **OK** (top right) otherwise quit without saving any setting with **ESC** (top left)



Once the sleep is set, in the initial screen the status of the stove (on/off) alternates with the message sleep 14.50 (example).

4.10. TIMER

This operating mode allows the programming of the start-up and shutdown of the stove in automatic mode.

Normally, the stoves have the PROGRAMMED mode deactivated.

The basic settings in PROGRAMMED mode are:

- **Clock**
- **Current day**
- **Selection of weekly / daily program**

4.10.1. Current date and time

See *paragraph 4.5.1.* How to set the current date and time.

Setting the current date and time is essential for proper timer operation.

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4.10.2. TIMER activation and selection of a program.

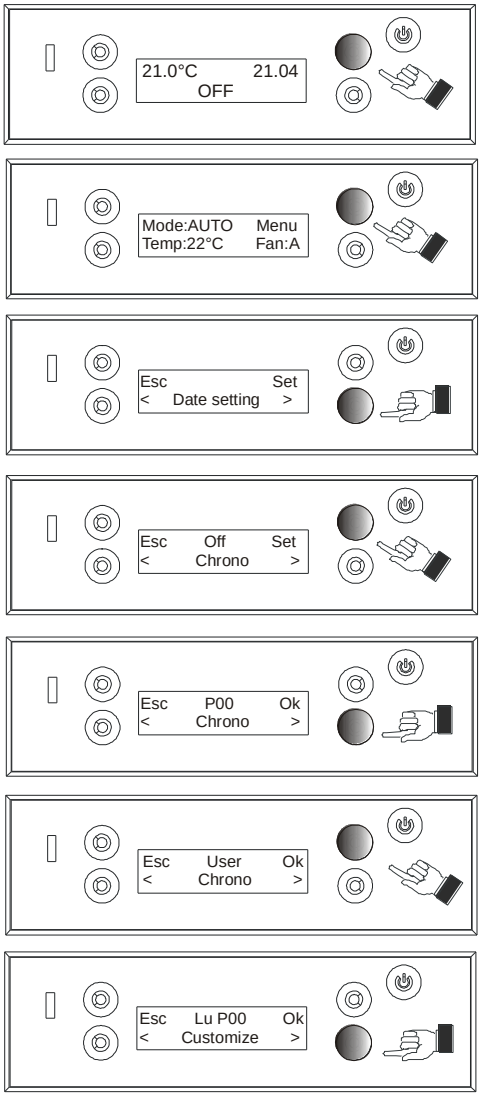
SETTING OF A WEEKLY PROGRAM

This is an explanation of how **to activate the TIMER function selecting a daily or weekly program:**

Press the Menu button to scroll through the date and time menu with the relative key until the word TIMER appears. Then press the SET key to insert a program. In the center of the display between Esc and Ok the letters P00 appear, by scrolling with the keys below it is possible to choose between 10 weekly preset programs built into the control panel of the stove.

According to the tables reported in *paragraph 4.11.,* choose the program that best meets the heating needs of the house and save the program number on the display of the control panel. Confirm with OK.

If none of the 10 pre-set programs meets your personal heating needs, you can put together a personalized weekly program that suits you best (see next paragraph).



If the keypad of the control panel is inactive for 10 seconds the control panel automatically leaves the timer adjustment mode and does not confirm the last setting inserted.

To confirm the TIMER choice press OK.

ATTENTION!

The TIMER function can be activated/deactivated whether the stove is on or off.

If a timer program has been activated, in the initial screen the stove operating status (on/off/start-up….) alternates with the word "TIMER P01 active" (example)

SETTING OF A PERSONALIZED PROGRAM

If one of the pre-set weekly programs does not suit the heating needs for your home, you can choose and combine various daily programs included in the memory of the remote control to create a personalized weekly program.

60 daily programs can be selected and you can select a different program for each day of the week.

To activate this option, proceed as described above for setting a weekly program, but instead of selecting one of the programs contained in the table of the weekly programs (**from P01 to P10**) select the program **USER**.

Once the USER program is selected, press SET and in the center of the display the word Lu P00 appears (where P00 flashes) while in the part below, the word CUSTOMIZE appears, by pressing the related key (bottom right or left) it is possible to insert the daily program.

By scrolling with the bottom right or left key of the control panel it is possible to choose the desired program from 1 to 60, by consulting the table in par. 4.11.

Once the desired program is selected for the active day (e.g. 32 for the day MO = Monday), press the OK key in the top right and on the

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display the word Ma P00 will appear (where the word P00 flashes), proceed with the programming mode until the day SU=Sunday.

If for a given day of the week you do not want to set any program, select program 00 and continue with programming.

If a timer program is active but the user decides to start/stop the stove in advance, the command given by the user overrides the timer and is carried out. The next command from the timer is obviously disregarded.

Example: if the timer calls for the stove to be started up at 10:00 but the user decides to start it at 9:00, by pressing button 5 the stove will come on. At 10:00, the timer, which was to order start-up, will be disregarded.

IMPORTANT NOTE

It takes 10 to 15 minutes for the stove to start up.

Take this into account when setting the start time. Likewise, stove shutdown requires about 30 minutes, during which the heat stored up by the stove is still released into the room.

Keep this in mind for substantial fuel savings.

4.10.3. TIMER de-activation.

To de-activate the timer, access the menu again by means of button **OFF**.

4.11. PRE-SET WEEKLY AND DAILY PROGRAMS

4.11.1. Weekly programs

The weekly programs selected by MCZ and stored in the memory of the control panel were designed to meet the needs of most users who are out of the home during working hours (factory workers, shopkeepers, office workers, shift workers) as well as those who are usually at home (homemakers, senior citizens, etc.).

Also, programming has been provided for those who use the stove in a weekend home (e.g. a home in the mountains) and want to find the home warm when they get there.

If you have even more specific needs which are not met by any of these weekly programs, you can customize weekly program P99 using seven different programs for each day of the week *(see chapter 4.11.2)*.

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PROGRAMMES		HOURS																								
No.	DAYS	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
P01	Mon-Fri																									
	Sa-Su																									
P02	Mon-Fri																									
	Sa-Su																									
P03	Mon-Fri																									
	Sa-Su																									
P04	Mon-Fri																									
	Sa-Su																									
P05	Mon-Fri																									
	Sa-Su																									
P06	Mon-Fri																									
	Sa-Su																									
P07	Mon-Sa																									
	Su																									
P08	Mon-Sa																									
	Su																									
P09	Mon-Sa																									
	Su																									
P10	Fri																									
	Sa-Su																									

On
Off

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4.11.2. Daily programs

PROGR.	HOURS

N°	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
00																									
01	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
02								■	■	■															
03							■	■	■																
04						■	■	■	■																
05												■	■	■	■										
06													■	■	■	■									
07													■	■	■	■	■	■	■	■	■	■	■	■	
08															■	■	■	■	■	■	■	■	■	■	
09																		■	■	■	■	■	■	■	
10																			■	■	■	■	■	■	■
11						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
12							■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
13								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
14								■	■	■		■	■	■	■										
15								■	■	■			■	■	■	■									
16							■	■	■			■	■	■	■										
17							■	■	■				■	■	■	■									
18						■	■	■	■			■	■	■	■										
19						■	■	■	■				■	■	■	■									
20								■	■	■								■	■	■	■	■	■	■	
21								■	■	■									■	■	■	■	■	■	■
22							■	■	■									■	■	■	■	■	■	■	
23							■	■	■										■	■	■	■	■	■	■
24						■	■	■	■									■	■	■	■	■	■	■	
25						■	■	■	■										■	■	■	■	■	■	■
26												■	■	■	■			■	■	■	■	■	■	■	
27												■	■	■	■				■	■	■	■	■	■	■
28													■	■	■	■		■	■	■	■	■	■	■	
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30								■	■	■		■	■	■	■			■	■	■	■	■	■	■	
31								■	■	■		■	■	■	■			■	■	■	■	■	■	■	■
32								■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	
33								■	■	■			■	■	■	■		■	■	■	■	■	■	■	
34								■	■	■			■	■	■	■			■	■	■	■	■	■	■
35								■	■	■			■	■	■	■	■	■	■	■	■	■	■	■	
36								■	■	■					■	■	■	■	■	■	■	■	■	■	■
37							■	■	■			■	■	■	■			■	■	■	■	■	■	■	
38							■	■	■			■	■	■	■				■	■	■	■	■	■	■
39							■	■	■			■	■	■	■	■	■	■	■	■	■	■	■	■	
40							■	■	■				■	■	■	■		■	■	■	■	■	■	■	
41							■	■	■				■	■	■	■			■	■	■	■	■	■	■
42							■	■	■				■	■	■	■	■	■	■	■	■	■	■	■	
43							■	■	■						■	■	■	■	■	■	■	■	■	■	
44						■	■	■	■			■	■	■	■			■	■	■	■	■	■	■	
45						■	■	■	■			■	■	■	■				■	■	■	■	■	■	■
46						■	■	■	■			■	■	■	■	■	■	■	■	■	■	■	■	■	
47						■	■	■	■				■	■	■	■		■	■	■	■	■	■	■	
48						■	■	■	■				■	■	■	■			■	■	■	■	■	■	■
49						■	■	■	■				■	■	■	■	■	■	■	■	■	■	■	■	
50						■	■	■	■						■	■	■	■	■	■	■	■	■	■	
51									■	■	■	■	■				■	■	■	■					
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54				■	■															■	■	■	■	■	
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57									■	■										■	■	■	■	■	■
58								■	■										■	■	■	■	■	■	
59				■	■								■	■	■										
60							■	■					■	■	■				■	■	■	■			

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4.12. PRACTICAL EXAMPLE OF DAILY PROGRAMMING

4.12.1. Setting of a daily program

Let's look at a user who does not have regular daily hours (a free-lance worker, for example), but who generally expects to be at home at the following times:

- MONDAY ➔ home until 10:00 and from 17:00 on
- TUESDAY ➔ home until 8:00 and from 14:00 on
- WEDNESDAY ➔ at home all day and does not wish to set any program
- THURSDAY ➔ at home all day
- FRIDAY ➔ at home until 9:00, from 12:00 to 15:00 and from 18:00 on
- SATURDAY ➔ at home only after 18:00
- SUNDAY ➔ at home only after 14:00

Based on these times, from the table in paragraph 4.11.2 the daily programs are selected which best suit this routine.

- MONDAY ➔ Program **20**
- TUESDAY ➔ Program **43**
- WEDNESDAY ➔ Program **00**
- THURSDAY ➔ Program **13**
- FRIDAY ➔ Program **34**
- SATURDAY ➔ Program **10**
- SUNDAY ➔ Program **08**

To activate this type of customised setting follow the instruction in paragraph 4.10 page 39.

4.13. SAFETY DEVICES

The stove is fitted with the following safety devices:

- **SMOKE TEMPERATURE SENSOR.**
  Monitors the temperature of the smoke, and gives permission for start-up or shuts the stove down when the smoke temperature falls below the preset value.
- **PELLET HOPPER TEMPERATURE SENSOR.**
  If the temperature exceeds the preset safety level, it immediately shuts down the stove, and has to be reset, after the stove has cooled. This must be done before the stove will restart.
- **ELECTRICAL SAFETY**
  The stove is protected against violent surges of current by the main fuse, which is located on the control panel at the rear of the stove. Other fuses to protect the electronic boards are to be found on the boards themselves.
- **FAILURE OF THE COMBUSTION BLOWER**
  If the blower stops, the board shuts off the supply of pellets, and an alarm code is displayed.

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- **BREAKDOWN OF THE FEED MOTOR**

  If the feed motor stops, the stove continues to function until it has cooled down to the minimum level.
- **TEMPORARY POWER CUT**

  If there is a power outage during operation, when the power comes back on the stove will go into cooling mode and then it will come back on automatically.
- **FAILURE TO LIGHT**

  If during ignition no flame develops, the stove will go into alarm condition.

TAMPERING WITH THE SAFETY DEVICES IS PROHIBITED

It is only after eliminating the cause which gave rise to the intervention of the safety system, that it is possible to relight the stove and thus reset the automatic operation of the sensor. To understand which anomaly has occurred, consult this manual at paragraph 4.14 which explains what to do based on the alarm message the stove displays.

ATTENTION

If the stove is not used as described in this instruction booklet, the manufacturer refuses to accept any responsibility for damage to persons and property that may arise. The manufacturer furthermore refuses to accept responsibility for damage to persons and property arising from the failure to observe all the rules contained in the manual and in particular:

- **Failure when carrying out works of maintenance, cleaning and repair to adopt all necessary measures and precautions**
- **Tampering with the safety devices.**
- **Removing the safety devices.**
- **Failure to connect the stove to an efficient system for the discharge of smoke.**
- **Failure to check in advance that the room where the stove is to be installed is adequately ventilated.**

4.14. ALARM SIGNALS

Should an operation problem occur, the stove enters a shutdown phase and an alarm informs the user of the type of fault that occurred using a 3 digit code that remains displayed on the control panel of the stove (and a short description of the alarm type)

The table below describes the possible alarms signaled by the stove, associated to the respective code that appears on the emergency panel, and useful suggestions to solve the problem.

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MESSAGE ON DISPLAY	TYPE OF PROBLEM	SOLUTION
A01	Fire fails to ignite	Check the level of pellets in the hopper. Check that the burn grate is properly inserted in its housing and is clear of carbon build up. Check whether there is power at the outlet.
A02	Fire goes out abnormally	It generally derives from a shutdown due to lack of fuel (hopper empty).
A03	Pellet hopper temperature exceeds foreseen safety limit. Overheating of the stove body	The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the distribution fans are faulty. When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.
A04	The temperature of the exhaust has exceeded pre-set safety limits	The stove will shut off automatically. Let the stove cool off for a few minutes, then re-light it. Control the exhaust of the smoke the type of pellet being used.
A05	During the function of the stove, an obstruction in the flue pipe occured or atmospheric agents disturbed the stove smoke outlet (wind, snow, etc.), or door is simply opend.	Control the correct closure of the door and eventual air infiltrations (e.g. combustion blower inspection plug missing). If all this checks are normal, protect the outlet from the wind or control and eventually clean the WHOLE flue system.
A06	The combustion blower is not able to provide the primary air required for combustion.	Draught difficulties or clogging of grate. Check whether the grate is clogged by carbon and clean as required. If necessary clean the WHOLE vent system and the air intake.
A08	Combustion Blower Failure	Check that the combustion blower housing is clean and if it is dirt that is blocking it. If not it is likely that the combustion blower is defective. Call an authorized service centre to make the replacement.
A09	The smoke probe is defective and does not properly measure the temperature of the discharge smoke	Contact an authorized service centre to replace the component.
A10	The plug is defective	Contact an authorized service centre to replace the component.
A11	Defective feed motor	Contact an authorized service centre to replace the component.
A13	Defective electronic board	Contact an authorized service centre to replace the component.
A14	Generic failure of sensor	This alarm is not blocking, only a warning screen appears. Contact an authorized service centre to replace the component.

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A17	The hopper lid remained opened for more than 1 minute.	Close the hopper lid properly and switch on the stove. Eventually remove the pellet from the top of the lid micro-switch box. If it is not enough, check whether the micro-switch box fast-on are properly connected (IMPORTANT WARNING: Disconnect the 120V power supply before this check!).
SEr	Periodic maintenance warning	If this flashing messages appears when lighting the stove, it means that the hours of operation pre-set before the maintenance have elapsed and a new maintenance intervention is necessary. Contact a specialist MCZ technician.

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4.15. Exiting alarm condition

If an error code or alarm interrupts the operation of the stove you can re-set the normal operation of the stove by pressing the on/off key for a long time. After a short verification phase if the cause that caused the alarm does not persist, the stove leaves the alarm status and it may restart.

4.15.1. Shutdown of the stove

The following things can cause stove shutdown:

- Overheating of the stove body (**"A03"**)
- Overheating of the exhaust ("**A04**")
- During the function of the stove, an uncontrolled air intake occurred in the combustion chamber or an obstruction in the flue pipe. (**"A05"**)

WHAT TO DO:

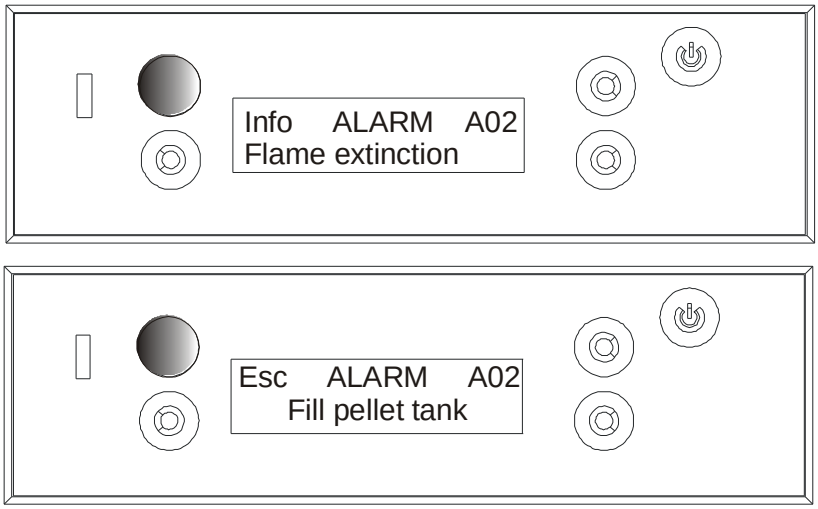
When the stove is cold: if the message "**A03**" appears: The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the air fans are faulty

When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.

If the alarm **"A04"** appears the stove shutdown in automatic, leave it to cool down for a few minutes and then re-light. Cancel the alarm and re-light.

If the alarm **"A05"** appears: it is caused by prolonged opening of the fire door or by substantial air infiltration (e.g. combustion blower inspection plug missing). If not caused by these factors control the smoke outlet protection against the strong wind and if necessary clean the smoke duct and the flue pipe.

Only after the cause of the blockage has been permanently eliminated can a fresh attempt to relight the stove be made.



Example: Alarm on the display of the control panel

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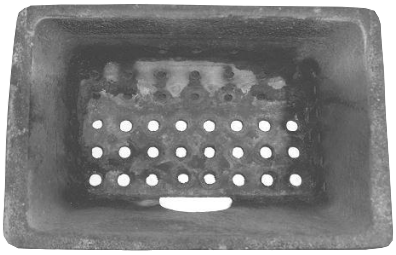
5. MAINTENANCE AND CLEANING

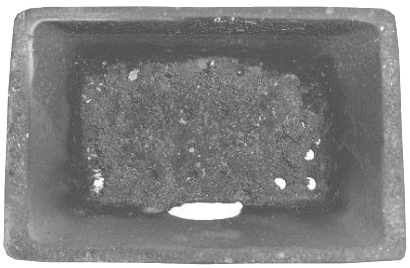
ATTENTION!

All cleaning of all parts must be carried out with the stove completely cold and unplugged.

The stove does not need much maintenance if used with certified quality pellets.



Example of clean grate



Example of dirty grate

5.1. DAILY AND WEEKLY CLEANING BY THE USER

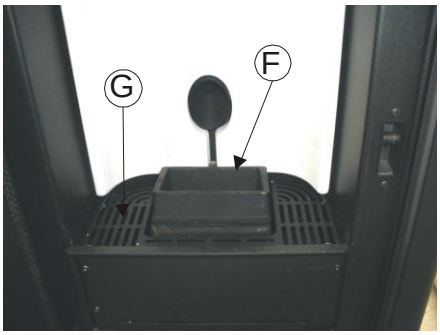
5.1.1. Before each lighting

Using a suitable tool clean the grate **"F"** of ash and any incrustation which could obstruct the passage of air.

In the case of pellet depletion, unburnt pellet in the grate could accumulate in the hopper. Always empty the residuals from the grate prior to each lighting.

REMEMBER THAT ONLY A CORRECTLY POSITIONED AND CLEAN GRATE CAN GUARANTEE THE OPTIMAL LIGHTING AND OPERATION OF YOUR PELLET STOVE.

For good cleaning of the grate, pull it completely out of its housing and thoroughly clean the grate and holes on the bottom. If you use good-quality pellets, you will normally only need to use a paintbrush to restore the perfect condition of the component. For tough incrustations, use the steel tool provided with the stove.



Cleaning the ash collection compartment

5.1.2. Check every 2/3 days

Clean and empty the ash drawer, watching out for hot ash.

Disposal of Ashes: Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have been thoroughly cooled. No other waste shall be placed in this container.

Only if the ash is completely cold, it is possible to use a vacuum cleaner to remove it. Use a drum-type vacuum cleaner that is suitable for picking up particles of a certain size.

Experience, and the quality of the pellets used, will determine the frequency of cleaning.

It is however advisable not to let it exceed 2 or 3 days.

Once the operation is finished, reinsert the ash drawer below the grate making sure it is properly seated.

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5.1.3. Cleaning the glass

For cleaning the ceramic glass, the use of a dry brush is recommended, or if it is very dirty, use stove glass cleaner and a soft cloth.

Cleaning the glass

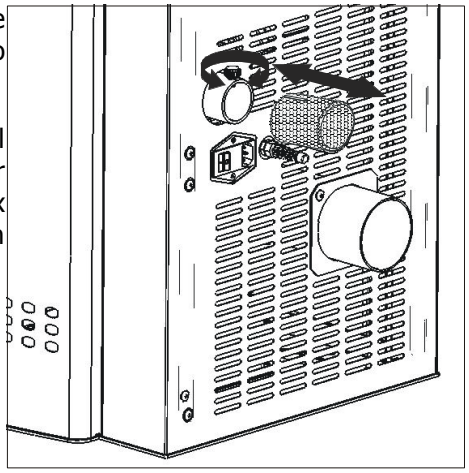
ATTENTION!

Do not clean the ceramic glass until its surface has been thoroughly cooled.

Do not use abrasive products and do not spray the cleaning product on the glass of the painted parts or on the gaskets of the fire door (ceramic fiber cord)

In case of door glass break, it must be replaced with a product of the same type. Order it referring to code #4 described in chapter 8.2.1. The glass used in all MCZ stoves is a 5mm ceramic glass type resistant to 1400°F.

To replace the glass remove the door and lay it down in a horizontal plane. Then unscrew the parts 5a and 5b (refer to figure in chapter 8.2.1). Replace the broken ceramic glass with a new identical one and fix it again to the door structure, being careful to keep the glass gasket in the same position as it was before removing the glass.



ATTENTION!

Use only original MCZ ceramic glass for substitution.

The manufacturer refuses to accept any responsibility and the guarantee lapses if this condition is not respected.

5.1.4. Cleaning of the air filter

At the back of the stove, at the combustion air intake tube Ø 5 cm, there is a metallic mesh air filter. Its purpose is to keep dirt out of the motor body and the internal sensor.

It is advisable to check every 15/20 days whether the filter is clean. Remove lint or any other material which may have been trapped by the filter.

Checking and cleaning will be required more frequently if there are pets in the home.

For cleaning, just turn the knob that holds the filter on the air intake pipe and remove the filter by turning in the direction indicated by the arrow. Clean it with a brush, damp cloth or compressed air.

Removing the air filter for cleaning

The filter is made of metallic mesh. It is soft and malleable to the touch. Therefore, when cleaning it, be careful not to crush it or damage it in any other way. If it is broken it must be replaced

ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

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5.2. PERIODIC CLEANING BY A SPECIALISED TECHNICIAN

5.2.1. Cleaning of the heat exchanger

After the winter you will need to clean the compartment where discharge smoke passes.

This cleaning must be done in order to remove all combustion residues before time and humidity let them harden and make them difficult to remove.

CLEANING OF HEAT EXCHANGER:

CLEANING THE UPPER COMPARTMENT

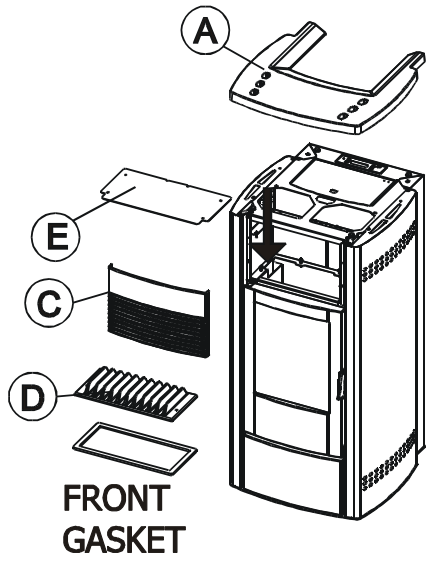
With the stove cold remove the cast iron top **"A"**, remove the sides as indicated in. Par. 3.3, take off the cast iron front top "**C**". At this point remove the plug (by unscrewing the screws) **"E"**, remove the exchanger **D** and access the inspection hole for cleaning (see arrow): Using a stiff rod or a bottle brush, scrape the inner walls of the fire box so that the ashes drop into the part below **"H"**.

Clean and refit all the components by using a new front gasket.

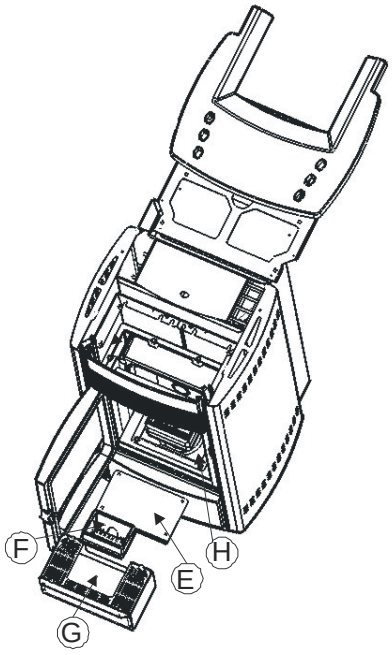
CLEANING THE LOWER COMPARTMENT

Remove the ash drawer "**G**" , unscrew the screws and remove the plug "**E**" and with the nozzle of a vacuum cleaner to remove the soot and ash which has accumulated in the exchanger "**H**". Also remove the grate **"F"** and clean it every 2/3 days as explained in chap. 5.1

It is worthwhile to carry out the cleaning of the upper exchanger at the end of the season and possibly by an authorised MCZ technician in order to replace the gaskets that are below plug "**C**" and "**E**"



Cleaning the upper compartment



Cleaning the lower compartment

CLEANING OF VENT SYSTEM AND GENERAL CHECKS:

Clean the vent system, especially in the area of the T connectors, elbows and any horizontal stretches of pipe.

For information on cleaning the flue pipe, contact a professional chimney sweep.

Check the seal of the ceramic fibber gaskets on the door of the stove. If necessary, order new gaskets from the retailer for replacement or contact an authorized service centre.

ATTENTION:

The frequency with which the smoke discharge system is cleaned should be determined based on the type of use that is made of the stove and the type of installation.

MCZ suggests relying on an authorized service centre for end-of-season cleaning and maintenance and a general check of the stove's components.

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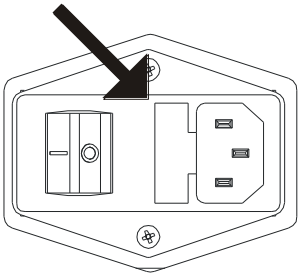
5.2.2. Shutting the stove down (end of season)

At the end of season, before shutting down the stove, we recommend completely removing pellets from the hopper with the use of a vacuum cleaner with an extension.

If the stove is to be disconnected and stored, the stove must be unplugged and placed in a dry place protected from the elements. For greater safety, especially if there are children around, we recommend removing the power cord from the rear of the stove.



Upon re-start, when pressing the main switch (located on the back of the stove) does not make the control panel display light up, it could mean that the service fuse needs replacing.

On the rear of the stove there is a fuse compartment which is located underneath the supply socket. Use a screwdriver to open the fuse-compartment and if necessary replace them (3.15 AT delayed)

5.2.3. Check of internal components

ATTENTION!

The check of the internal electro-mechanical components must be carried out only by qualified personnel with technical knowledge of electricity and combustion.

We recommend that an annual maintenance service is carried out, preferably by the dealer or service technician. The essential part of this service is a visual and functional check on the internal components:

The following is a summary of the checks and/or maintenance tasks which are indispensable for the correct operation of the stove.

PARTS / INTERVAL	1 DAY	2-3 DAYS	30 DAYS	60-90 DAYS	1 YEAR
Grate	●				
Ash collection		●			
Ash drawer		●			
Glass		●			
Lower heat exchanger				●	
Complete exchanger					●
Smoke duct			●		
Door seal					●
Air filter			●		●
Flue pipe					●
Remote control battery (if purchased/optional)					●

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6. PROBLEMS / CAUSES / SOLUTIONS

ATTENTION:

All repairs must be carried out exclusively by a specialised technician, with the stove completely cold and the stove unplugged.

PROBLEM	POSSIBLE CAUSES	REMEDY
Pellets not being fed into the combustion chamber.	• Pellet hopper empty. • Feeder screw blocked by sawdust. • Feed motor defective. • Defective electronic board.	• Refill pellet hopper. • Empty the hopper and manually free the auger of sawdust. • **Replace feed motor.** • **Replace electronic board.**
The fire goes out or the stove stops automatically.	• Pellet hopper empty. • Pellets not being fed in. • Intervention of pellet temperature sensor. • Door not closed properly or gaskets worn. • Unsuitable pellets. • Low pellet feed rate. • Combustion chamber dirty. • Smoke outlet obstructed. • Combustion blower failed.	• Refill pellet hopper. • See previous problem.. • Let the stove cool down completely, reset the thermostat until lockout ceases, relight stove; if problem persists, and contact technical assistance. • Close the door **or replace the gaskets with original spare parts**. • Change to a type of pellet recommended by the manufacturer. • **Have the fuel feed rate checked by technical service.** • Clean the combustion chamber, following instructions in the manual. • Clean the vent system. • **Check the motor and replace if necessary.**
The stove runs for a few minutes and then goes out.	• Lighting cycle not completed. • Temporary failure of electricity supply. • Smoke duct obstructed. • Temperature sensors defective or broken. • Igniter failure.	• Re-run lighting cycle. • See previous instruction. • Clean vent system. • **Check and replace sensors as necessary.** • **Check the plug and replace if necessary.**
Pellets build up in grate, door glass gets dirty and flame is weak.	• Insufficient combustion air. • Pellets damp or unsuitable. • Combustion blower broken.	• Check that the room air intake is present and free. • Check that the combustion air filter on the air inlet is not obstructed. • Clean the grate and check that all the airways are clear. • Carry out a general cleaning of the combustion chamber and the vent system. • Check the state of the door gaskets. • Change the type of pellet. • **Check the motor and replace if necessary.**

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PROBLEM	POSSIBLE CAUSES	REMEDY
Combustion blower does not work.	• No electrical supply to the stove. • The motor is broken. • Defective electronic board. • Control panel broken.	• Check the supply voltage and the protection fuse. • **Check the motor and capacitor and replace if necessary.** • **Replace electronic board.** • **Replace the control panel.**
The convection air fan runs continuously.	• Temperature sensor defective or broken. • Fan broken.	• **Check the operation of the sensor and replace if necessary.** • **Check the operation of the motor and replace if necessary.**
Remote control does not work (if purchased / optional)	• Remote control batteries flat. • Remote control broken.	• Replace batteries. • Replace remote control.
In the automatic position the stove always runs at full power.	• Room thermostat set to maximum. • Temperature sensor defective. • Control panel defective or broken.	• Reset the thermostat temperature. • **Check the operation of the sensor and replace if necessary.** • **Check the panel and replace if necessary.**
The stove does not run	• Lack of electricity supply. • Pellet sensor in lockout. • Fuse blown.	• Check that the electric socket is plugged in and that the main switch is in position "I". • Clear lockout by resetting the rear thermostat, **replace the thermostat if it happens again**. • Replace the fuse.
The stove does not light	• Make sure that the grate is clean • Check the position of the grate • Make sure that the sparkplug heats • Smoke outlet or duct blocked	• Clean the grate of any carbon residues or un-burnt pellets. • Put the grate back in its seat. • **Check and replace if necessary.** • Clean the smoke outlet and/or vent system

ATTENTION

The operations marked in bold type must be carried out by specialised MCZ personnel.

The manufacturer refuses to accept any responsibility and the guarantee lapses if this condition is not respected.

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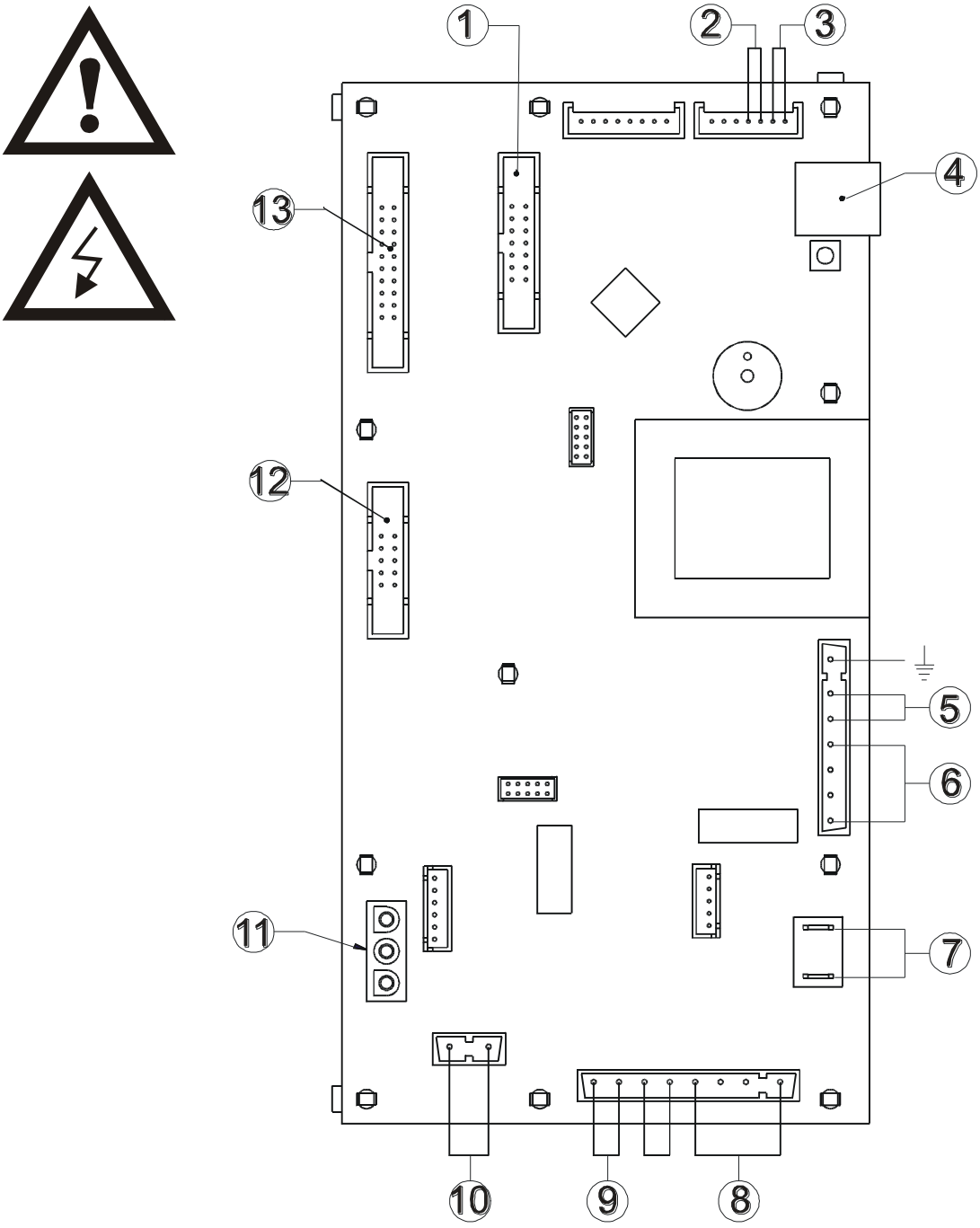
7. ELECTRICAL DIAGRAMS



MOTHERBOARD WIRING KEY

1. Control panel	8. Feed motor
2. Room temperature sensor	9. Contact thermostat
3. Smoke temperature sensor	10. Air fan
4. Modem connection	11. Combustion blower revolutions control
5. Switch	12. Air flow sensor
6. Ignition plug	13. Manifold for environment thermostat interface
7. Combustion blower	

N.B. The electrical wiring of the single components includes pre-wired connectors which are of different sizes.

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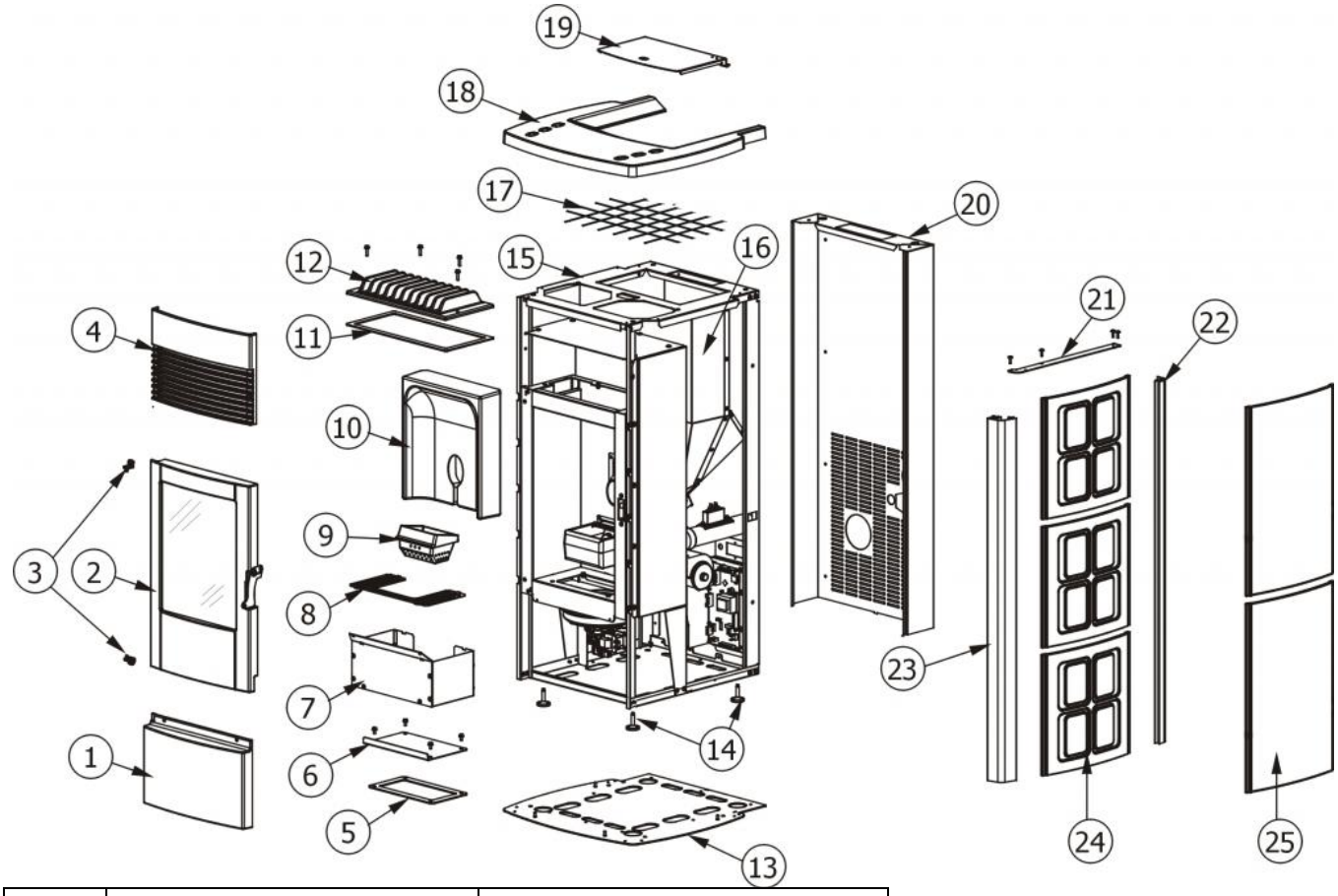
8. SPARE PARTS

8.1. EXTERNAL STRUCTURE COMPONENTS

8.1.1. STAR AIR



N.	CODE	DESCRIPTION
1	413008013V	Cast iron lower front
2	41300801250	Complete finished door
3	412008063	Fire door bracket
4	413008011V	Air outlet grille in cast iron
5	41800802601	Gasket
6	41400906330V	Smoke compartment inspection plug
7	41400906430	Ash drawer
8	41400906610V	Fire box
9	413008003	Complete grate in cast iron
10	43650151	Back in ALUTEC
11	41800802601	Gasket ición
12	41300901100	Cast iron exchenger
13	41400905840V	Base
14	4120618	Support feet (4 pcs.)
15	41400904930V	Steel TOP painted black
17	41400904100	Hopper protection grille
18	413008010V	Top gray cast iron
19	41400906160	Pellet hopper cover
20	41400906001V	External back in steel
21	41400906710	Upright bracket
22	41200901460	Posterior RH-LE painted upright
23	41200901360	Anterior RH-LE painted upright
24	412508031	Side ceramics SALT & PEPPER
24	412508032	Side ceramics BURGUNDY
24	412508033	Side ceramics TERRA DI SIENA
25	41250904600	RH-LH side plates STEATITE

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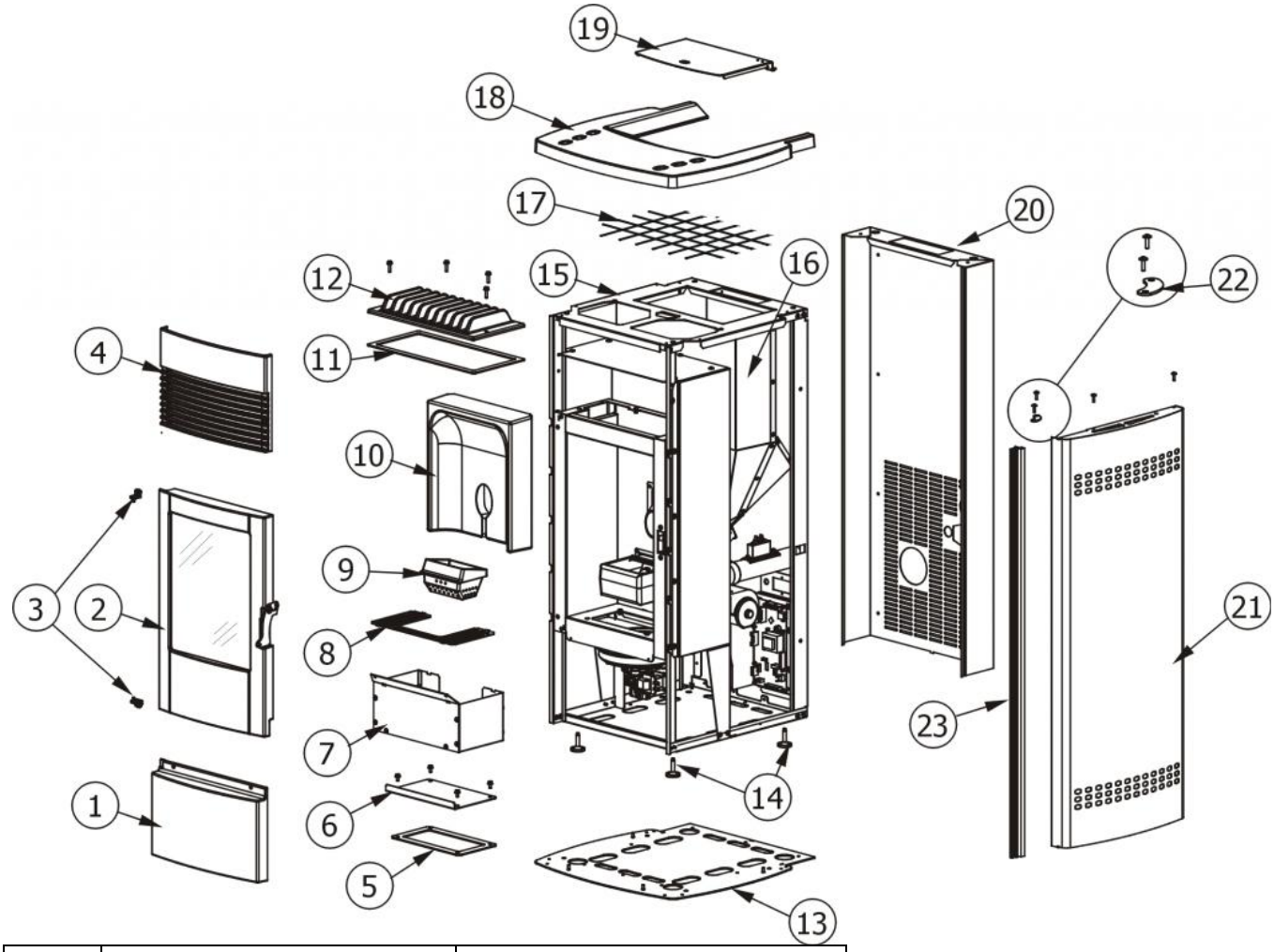
8.1.2. EGO AIR



N.	CODE	DESCRIPTION
1	**413008013V**	Cast iron lower front
2	**41300801250**	Complete finished door
3	**412008063**	Fire door bracket
4	**413008011V**	Air outlet grille in cast iron
5	**41800802601**	Gasket
6	**41400906330V**	Smoke compartment inspection plug
7	**41400906430**	Ash drawer
8	**41400906610V**	Fire box grille
9	**413008003**	Complete grate in cast iron
10	**43650151**	Back in ALUTEC
11	**41800802601**	Gasket
12	**41300901100**	Cast iron exchenger
13	**41400905840V**	Base
14	**4120618**	Support feet (4 pcs.)
15	**41400904930V**	Steel TOP painted black
16	**41400905030**	Pellet hopper
17	**41400904100**	Hopper protection grille
18	**413008010V**	Top gray cast iron
19	**41400906160**	Pellet hopper cover
20	**41400906001V**	External back in steel
21	**43641082**	RH-LH steel side BORDEAUX
21	**43641083**	RH-LH steel side WHITE
21	**43641084**	RH-LH steel side DARK
21	**43641085**	RH-LH steel side SILVER
21	**43641087**	RH-LH steel side INOX
22	**41400906210**	Superior Bracket
23	**41200804860**	Painted upright

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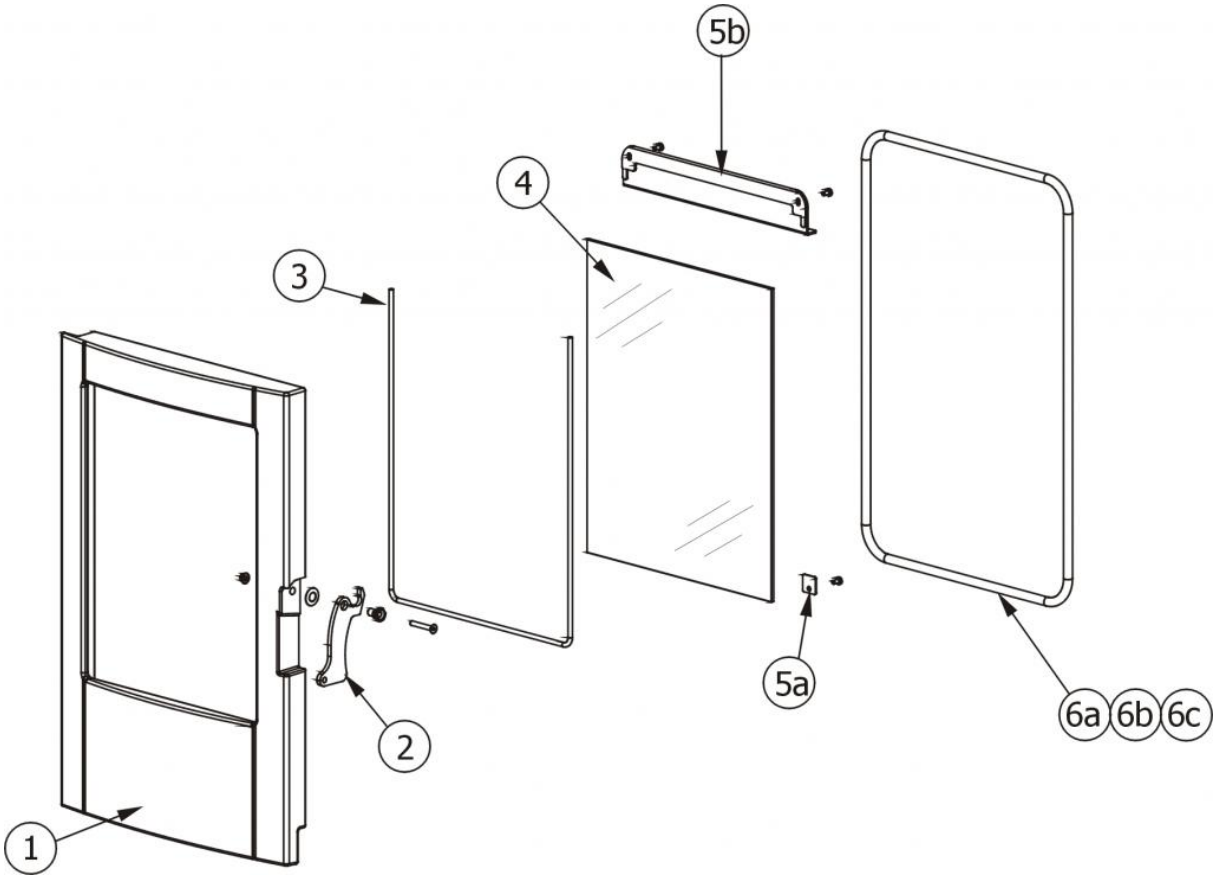
8.2. FIRE DOOR

8.2.1. STAR / EGO AIR



N.	CODE	DESCRIPTION
1	**413008012V**	Complete finished door
2	**41400911160**	Complete handle
3	**4120106**	FIREGLASS strip gasket
4	**41700900300**	Pyroceram complete with gasket
5b	**41400905730V**	Door deflector
5a	**43620242A**	Pyroceram fastening brackets
6c	**41201031**	Cord replacement kit (cord + silicon)
6a	**4120103A**	Ceramic fibre cord Ø 10 mm (5 m)
6b	**4120103B**	Ceramic fibre cord Ø 10 mm (50 m)

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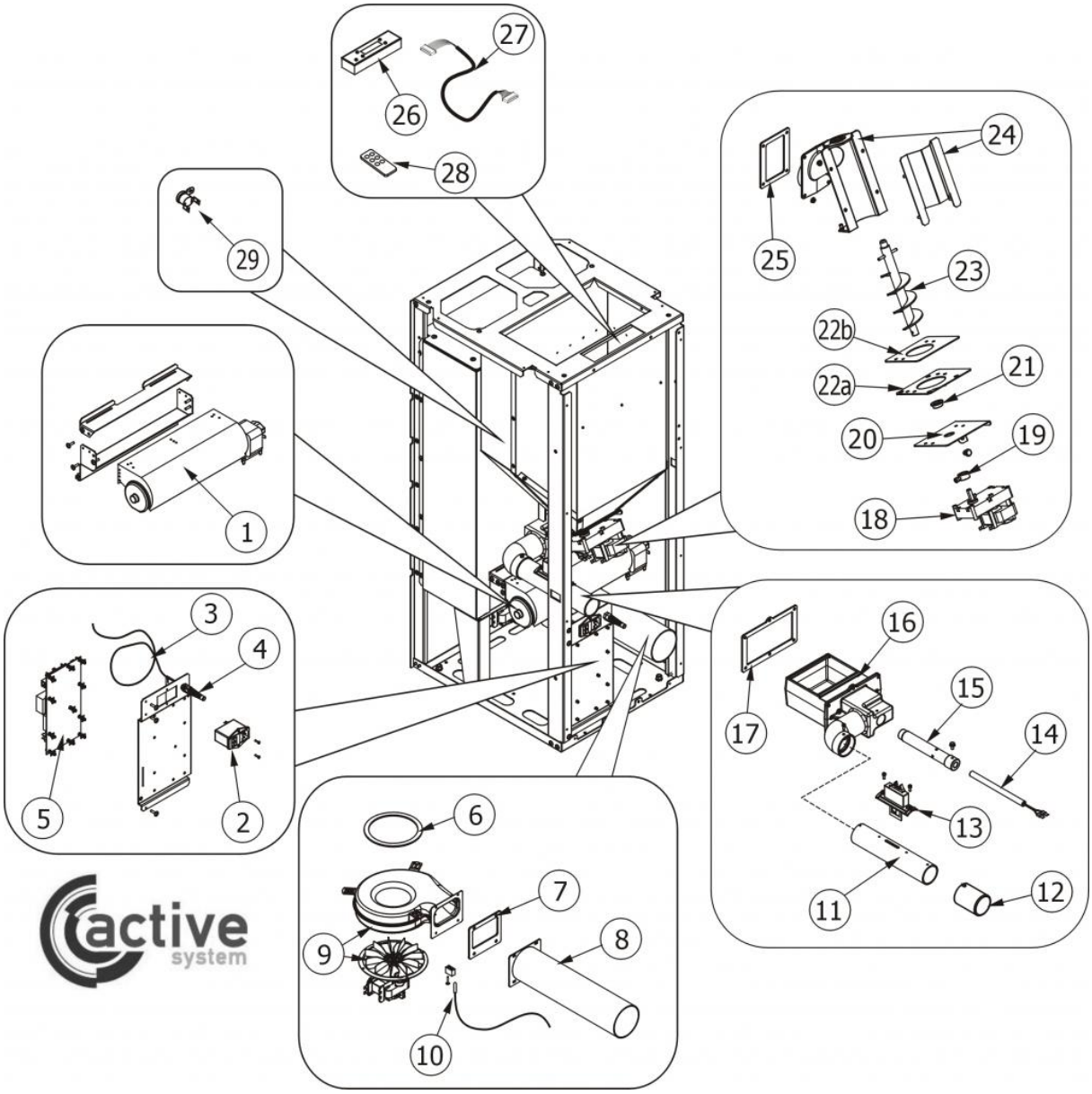
8.3. ELECTRONIC AND MECHANICAL INTERNAL COMPONENTS

8.3.1. STAR / EGO AIR



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N.	CODE	DESCRIPTION
1	**414508035**	Warm air fan
2	**4160459**	On button
3	**41450901700**	Ambient temperature sensor + smoke sensor /
4	**414508038**	Support bracket ambient temperature sensor
5	**414508021**	Motherboard
6	**41800802801**	Adhesive gasket
7	**418008030**	Gasket
8	**416008010**	Smoke outlet pipe
9	**414508024**	Smoke exhaust fan
10	**41450901700**	Ambient temperature sensor + smoke sensor
11	**41200901200**	Air inlet pipe
12	**4120889**	Anti-dust filter
13	**414508036**	Complete air sensor
14	**41450905000**	Pellet ignition sparkplug
15	**41200903900**	Sparkplug conduit
16	**414008043**	Combustion pot container
17	**418008027**	Gasket
18	**4160278**	Feed motor
19	**4120398**	Feed motor-feed screw connector
20	**41400903430**	Base of feed screw
21	**4120614**	Etched bush (2 pcs.)
22a	**4120615**	Feed screw base gasket
22b	**41400903310**	Base of feed screw conduit
23	**41200901040**	Pellet feed screw
24	**414008042**	Conduit of feed screw
25	**418008029**	Gasket
26	**414508022**	Control panel with LCD display
27	**4160414**	Rond-Flat cable
28	**4009001**	Remote control
29	**412007004**	Clickson 110°C

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